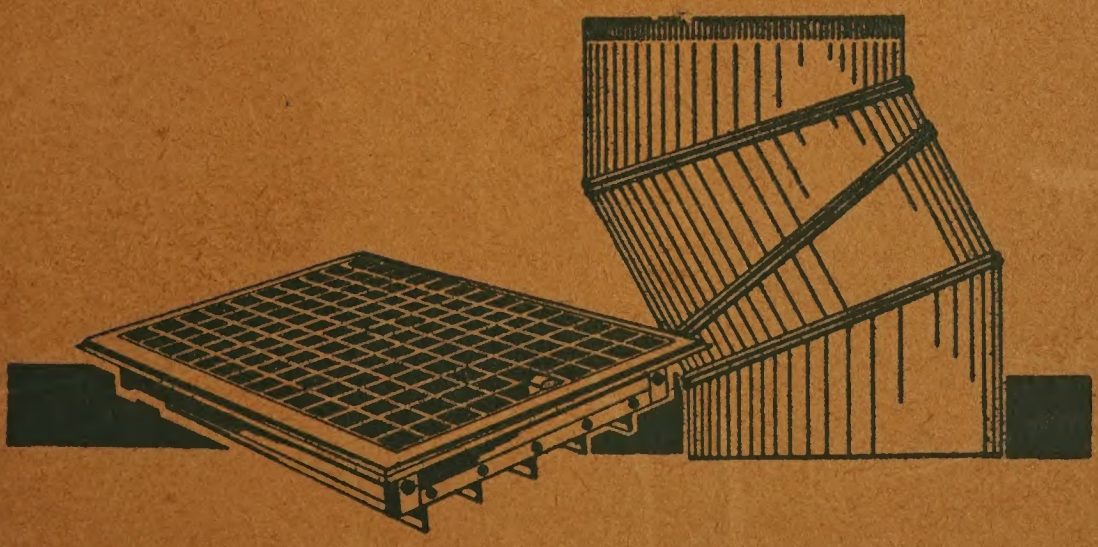
TIFFIN
REGISTERS FURNACE-PIPE *AND* FITTINGS

CATALOG NO. 12



The TIFFIN ART METAL CO.

TIFFIN, OHIO TOLEDO, OHIO

TIFFIN

SIMPLIFIED
FURNACE FITTINGS AND REGISTERS

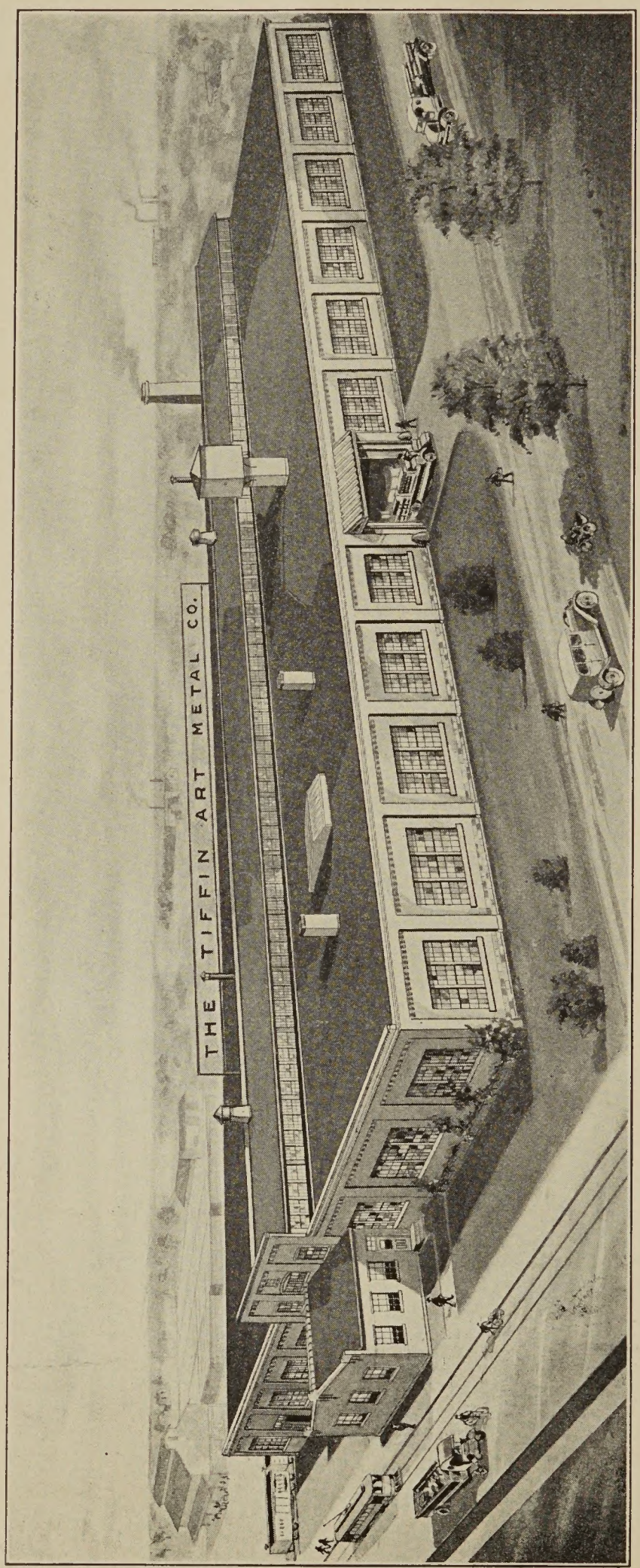
Single or Double Wall Stack

CATALOG NO. 12

THE TIFFIN ART METAL CO.

Main Office
TIFFIN, OHIO
Phone No. 54

Branch Warehouse
42-46 Vance St.
TOLEDO, OHIO
Phone Main 7474



Main Plant and Offices: Second Avenue and Broad Street, Tiffin, Ohio

This is a reproduction from a photograph, showing the main Factory and Office. The above buildings, modern in every detail, were constructed specially to meet the requirements for manufacturing Sheet Metal Products, and provide for adequate storage space in which to carry large stocks, thus enabling us to make prompt shipment of all orders.

Attention Furnacemen!

WE are illustrating and listing herewith a complete line of H & C Registers and Tiffin Fittings for same. We carry large and complete stocks at all times, enabling you to carry a small stock; thus keeping your investment down to a minimum. We have also tried to simplify our fittings, so as to eliminate a number of different styles which are not necessary. With the fittings listed you can make any kind of an installation necessary.

We wish to call your special attention to the automatic lock on all the Single and Double fittings; the lock on the single pipe will enable you to fasten three or four joints of pipe together at a time for installing, and we defy two men to pull two joints of the double pipe apart when locked together.

All pipe and fittings are standard size and accurately made, guaranteed to fit.

Full weight material is used throughout, and nothing but the very best of quality.

Registers are of the well known Hart & Cooley make, known for their large free air capacity. All H & C registers are made with the pinched up fret work, giving fifteen to twenty percent more free air capacity than any other make; enabling you to use smaller sized registers to take the capacity of the pipe.

H & C Registers are not dependent upon air capacity alone. The many other excellent features are described on the following pages.

Tiffin Service

QUICK SHIPMENTS:—All orders for stock material are shipped within twenty-four hours. Try us.

Two Warehouses

TIFFIN, OHIO
2nd Ave. and Broad St.
Phone 54

TOLEDO, OHIO
42–46 Vance St.
Phone Main 7474

Tiffin Products

Galvanized Roofing and Siding
Roofing Ternes
Heater Pipe Tin
Charcoal Tin
Galvanized and Black Sheets
Metal Tile
Asphalt Roofing
Roof Paints and Cements
Galvanized Eave Trough and Conductor
Eave Trough Fittings and Conductor Elbows
Eave Trough Hangers
Zinc and Copper Sheets and Products
Galvanized Skylights
Galvanized Cornices and Finals
Galvanized Ventilators
Marquees
Ornamental Ridging
Metal Ceiling
Galvanized Tanks and Troughs
Metal Garages and Grain Bins
Flashing Shingles
Wall Ties
Solder
Charcoal
Tinners Rivets
Cast Iron and Warm Air Dampers
Furnace Fittings
Furnace Registers
Furnace Supplies
Tinners Tools and Supplies
Tinners Fire Pots and Torches

The above items are manufactured or carried in stock by us; in fact we can manufacture anything in the sheet metal line, and would be glad to figure with you on any special work.

Estimates on entire sheet metal work for large buildings our specialty.

Service

Large stocks at both our Tiffin Factory and Toledo Branch warehouse, enables us to make shipments within twenty-four hours.

MOTOR TRUCK, ELECTRIC FREIGHT AND STEAM ROAD SERVICE TO ALL POINTS. Try us on your next order.

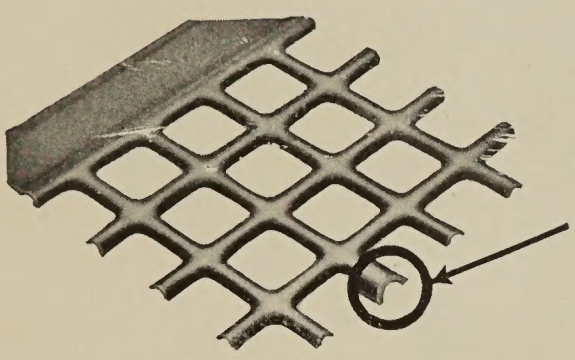
THE TIFFIN ART METAL CO.

Main Office and Factory
2nd Ave. and Broad St.,
TIFFIN, OHIO
Phone 54

Branch Warehouse
42–46 Vance St.,
TOLEDO, OHIO
Phone Main 7474

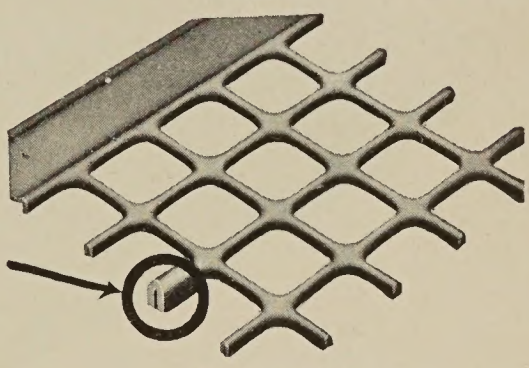
How we obtain *Greater Air Capacity* and *Additional Strength* in H & C Floor Registers

Original Patent



The Old Way

Patented

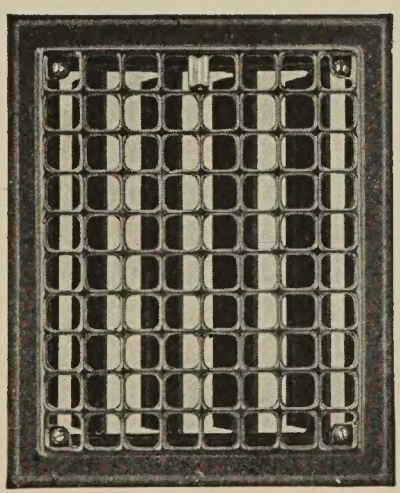


The New Way

The above illustrations show how the manufacturer of these Registers have increased the free air capacity and strength of their floor registers, without decreasing the amount of material used. They have pinched together the lower sides of the old type arches (Original Patent), in this way enlarging the size of each hole or opening 25%.

Nothing has approached this advance in register construction since the advent of the original Hart & Cooley Wrought Steel Register.

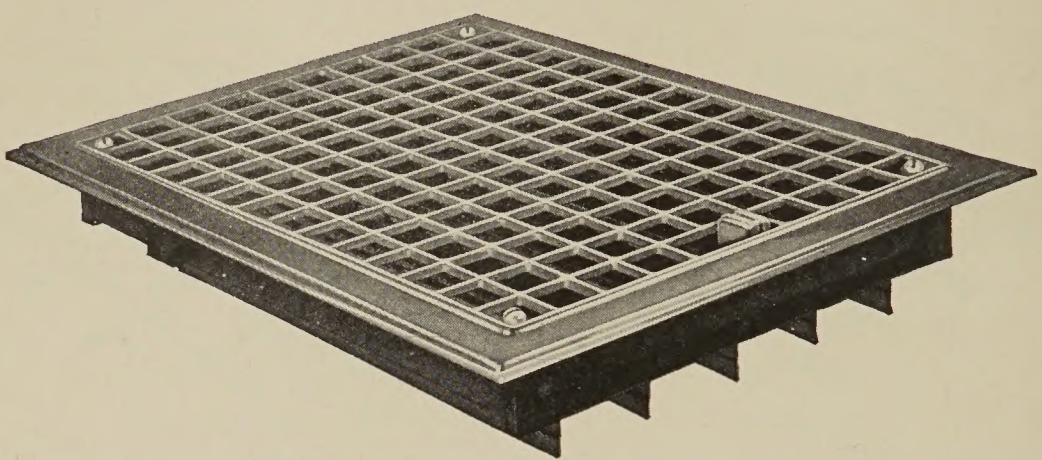
The superiority of H & C Floor Registers is not dependent upon air capacity alone. Their many other excellent features are described on the following pages.

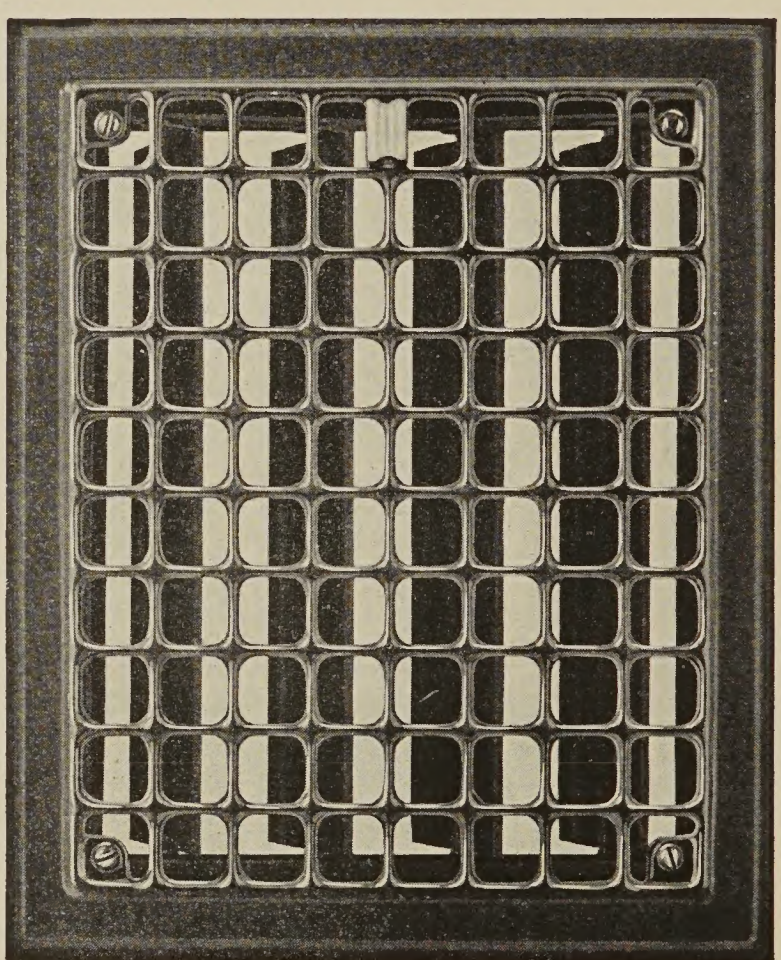


Face View

No. 200. Floor Register

Patented



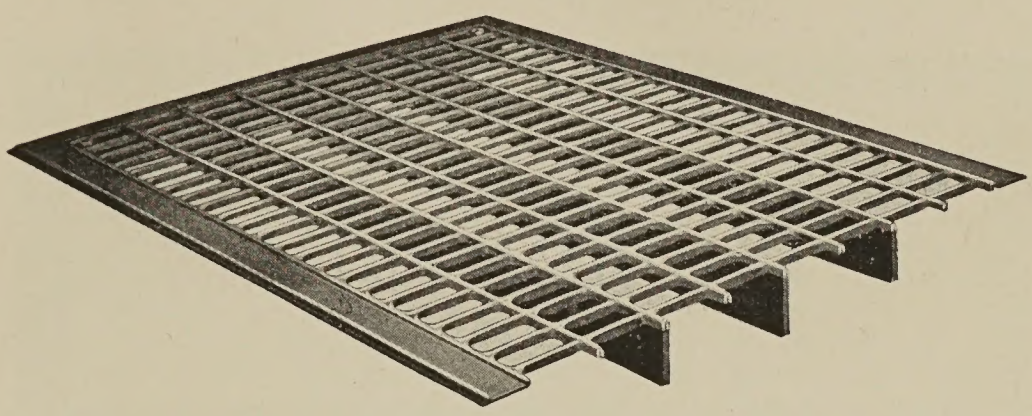


The square hole design is furnished in all sizes up to and including 14-inch width. Larger sizes have oblong hole as shown on opposite page.

List of sizes and prices on pages 9 to 15

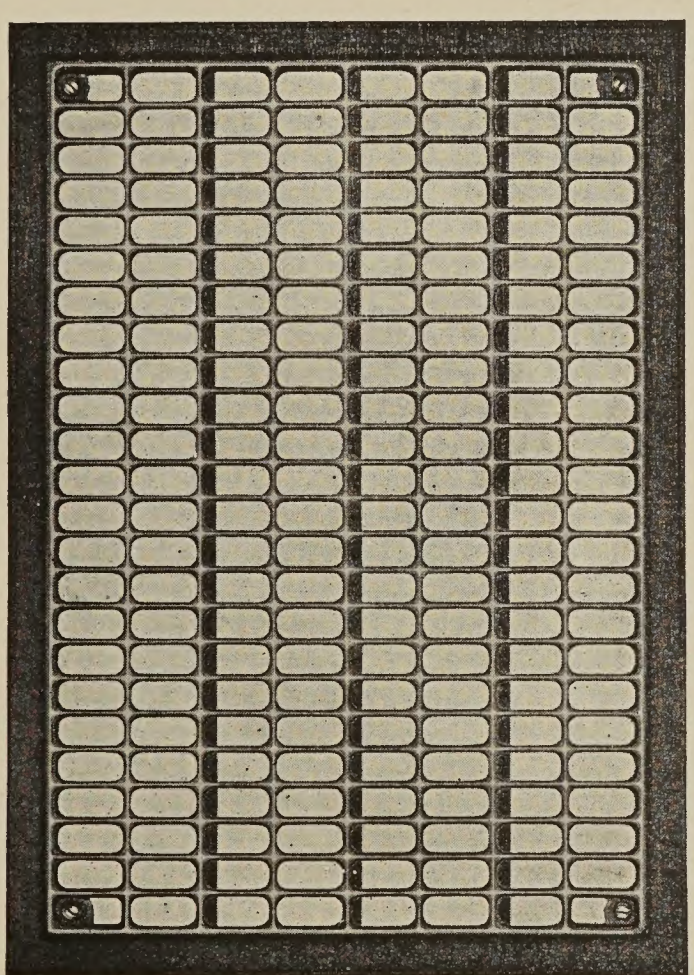
No. 250. Warm or Cold Air Face

Patented



These Faces have **stood the test** for years. **They will not break!** Recently improved by 25% increase in free area. They are regularly provided with supporting bars of requisite strength for floor use, in sizes 12 x 14 and larger. If smaller sizes are desired braced for floor use, orders should so state. When 12 x 14 and larger are to be used for side walls or ceilings, orders should read "250 N. B." and frames with supporting bars will be omitted.

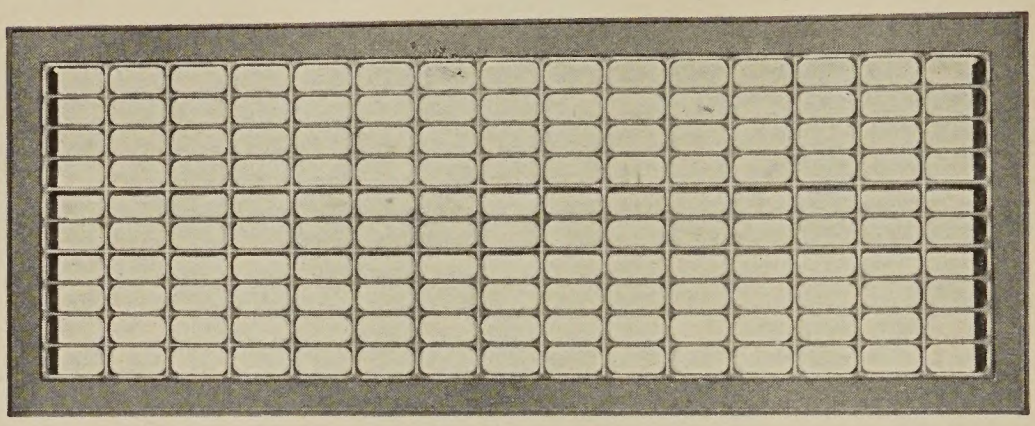
The air capacity of H. & C. faces is printed with list prices. Reference to same will demonstrate that sizes 25% smaller than heretofore may be used.



List of sizes and prices on pages 9 to 15

No. 255. Cold Air Face

Patented



This type of Face is somewhat lighter than our No. 250, but of ample strength. The braces are riveted to heavy angle plates, which are welded to the face and are not detachable. The air capacity is large, as per list below.

Though heavily braced for floor use, these Faces may be used in side wall also.

Quickly installed—the margin of Face covers uneven cutting of hole in the floor.

When the cost of fitting other types of Faces is considered, this line will prove the lowest in cost when installed.

Durable and unbreakable.

Made in the following sizes *only*.

NOTE!—Just the right sizes for use around edge of rugs.

List Prices

Sizes	Air Capacity, Square Inches	Pipe Inches	Pipe Capacity	Black Japanned	Oak Finish	Electroplated	
						*Oxidized Copper	Brass, Bronze, *Nickel,
10 x 24	180	14	154	$3.60	$3.75	$5.00	$6.50
10 x 30	225	16	201	3.75	4.25	5.75	8.50
12 x 14	126	12	113	2.50	3.00	4.50	5.00
12 x 24	216	16	201	3.75	4.00	5.50	8.00
12 x 30	270	18	254	4.00	4.50	6.00	9.00
14 x 30	313	20	314	4.50	5.00	9.00	11.00
18 x 30	405	22	380	5.75	6.50	10.00	11.50
20 x 30	450	24	452	6.00	7.00	10.50	12.00

*For sand finishes, add 10 per cent to the above prices.

"H & C" Wrought Steel Floor Registers

DIMENSIONS OF LEADING SIZES

Corresponding in Size with the Standard Cast Iron Makes

Sizes 4 x 6 to 14 x 22 inclusive have a uniform depth open of 2 5/16 in., closed 1 1/2 in.

Sizes 16 x 16 to 30 x 42 inclusive have a uniform depth open of 5 in., closed 3 in.

Size of Body	Air Capacity Sq. In.	Extreme Size of Register Face
4 x 6	16	5 1/4 x 7 1/4
4 x 8	22	5 1/4 x 9 1/4
4 x 10	27	5 1/4 x 11 1/4
4 x 12	33	5 1/4 x 13 1/4
4 x 15	41	5 1/4 x 16 1/4
4 x 18	49	5 1/4 x 19 1/4
5 x 8	27	6 5/16 x 9 5/16
5 x 9	31	6 5/16 x 10 5/16
5 x 10	34	6 5/16 x 11 5/16
5 x 12	41	6 5/16 x 13 5/16
5 x 13	44	6 5/16 x 14 5/16
5 x 14	47	6 5/16 x 15 5/16
5 x 15	51	6 5/16 x 16 5/16
5 x 16	54	6 5/16 x 17 5/16
5 x 18	61	6 5/16 x 19 5/16
6 x 6	25	7 11/16 x 7 11/16
6 x 8	33	7 11/16 x 9 11/16
6 x 9	37	7 11/16 x 10 11/16
6 x 10	41	7 11/16 x 11 11/16
6 x 12	50	7 11/16 x 13 11/16
6 x 14	58	7 11/16 x 15 11/16
6 x 16	66	7 11/16 x 17 11/16
6 x 18	74	7 11/16 x 19 11/16
6 x 20	83	7 11/16 x 21 11/16
6 x 24	100	7 11/16 x 25 11/16
6 x 30	124	7 11/16 x 31 5/8
7 x 7	34	8 11/16 x 8 11/16
7 x 9	44	8 11/16 x 10 11/16
7 x 10	49	8 11/16 x 11 11/16
7 x 12	58	8 11/16 x 13 11/16
8 x 8	45	9 3/4 x 9 3/4
8 x 10	56	9 3/4 x 11 3/4
8 x 12	67	9 3/4 x 13 3/4
8 x 14	78	9 3/4 x 15 11/16
8 x 15	84	9 3/4 x 16 11/16
8 x 16	90	9 3/4 x 17 11/16
8 x 18	100	9 3/4 x 19 3/4
8 x 20	112	9 3/4 x 21 3/4
8 x 24	135	9 3/4 x 25 3/4
8 x 30	168	9 3/4 x 31 11/16
8 x 36	200	9 3/4 x 38
9 x 9	56	10 7/8 x 10 7/8
9 x 12	75	10 7/8 x 13 7/8
9 x 14	88	10 7/8 x 15 7/8
9 x 20	126	10 7/8 x 21 7/8
9 x 22	138	10 7/8 x 23 7/8
9 x 24	151	10 7/8 x 25 7/8
9 x 30	189	10 7/8 x 31 13/16
9 x 32	201	10 7/8 x 34
9 x 36	227	10 7/8 x 38
10 x 10	70	11 15/16 x 11 15/16
10 x 12	84	11 15/16 x 13 15/16
10 x 14	98	11 15/16 x 15 7/8
10 x 15	105	11 15/16 x 16 15/16
10 x 16	112	11 15/16 x 17 7/8
10 x 18	126	11 15/16 x 19 7/8
10 x 20	140	11 15/16 x 21 7/8
10 x 22	154	11 15/16 x 23 7/8
10 x 24	168	11 15/16 x 25 7/8
10 x 30	210	11 15/16 x 31 7/8
10 x 36	252	11 15/16 x 38
10 x 40	280	11 15/16 x 42
12 x 12	101	14 1/16 x 14 1/16
12 x 14	118	14 1/16 x 16 1/16
12 x 15	126	14 1/16 x 17
12 x 16	134	14 1/16 x 18
12 x 17	143	14 1/16 x 19
12 x 18	151	14 1/16 x 20
12 x 19	160	14 1/16 x 21
12 x 20	168	14 1/16 x 22
12 x 22	185	14 1/16 x 24
12 x 24	202	14 1/16 x 26
12 x 30	252	14 1/16 x 32
12 x 36	302	14 1/16 x 38
12 x 40	336	14 1/16 x 42
12 x 48	403	14 1/16 x 50 3/16
14 x 14	137	16 1/4 x 16 1/4
14 x 16	157	16 1/4 x 18 5/16
14 x 18	176	16 1/4 x 20 5/16
14 x 20	196	16 1/4 x 22 5/16

"H & C" Wrought Steel Floor Registers (Cont.)

DIMENSIONS OF LEADINC SIZES

Size of Body	Air Capacity Sq. In.	Extreme Size of Register Face
14 x 22	216	16¼ x 24¼
14 x 24	235	16¼ x 26¼
14 x 30	294	16¼ x 32 5/16
14 x 36	352	16¼ x 38 5/16
14 x 40	392	16¼ x 42
14 x 48	470	16¼ x 50 3/16
16 x 16	190	18 5/16 x 18 5/16
16 x 18	213	18 5/16 x 20 5/16
16 x 20	237	18 5/16 x 22 5/16
16 x 22	260	18 5/16 x 24 5/16
16 x 24	284	18 5/16 x 26 5/16
16 x 28	332	18 5/16 x 30 5/16
16 x 30	355	18 5/16 x 32 5/16
16 x 32	379	18 5/16 x 34 5/16
16 x 36	426	18 5/16 x 38 5/16
16 x 42	498	18 5/16 x 44 3/8
18 x 18	240	20 5/16 x 20 5/16
18 x 20	267	20 5/16 x 22 5/16
18 x 21	279	20 5/16 x 23 5/16
18 x 22	293	20 5/16 x 24 5/16
18 x 24	319	20 5/16 x 26 5/16
18 x 27	360	20 5/16 x 29 5/16
18 x 28	372	20 5/16 x 30 5/16
18 x 30	400	20 5/16 x 32¼
18 x 36	480	20 5/16 x 38¼
20 x 20	296	22 3/8 x 22 3/8
20 x 22	326	22 3/8 x 24 3/8
20 x 24	355	22 3/8 x 26 3/8
20 x 26	385	22 3/8 x 28 3/8
20 x 28	415	22 3/8 x 30 3/8
20 x 30	445	22 3/8 x 32 3/8
20 x 32	474	22 3/8 x 34 3/8
20 x 36	534	22 3/8 x 38 3/8
22 x 22	358	24 3/8 x 24 3/8
22 x 24	390	24 3/8 x 26 3/8
22 x 26	424	24 3/8 x 28 3/8
22 x 28	455	24 3/8 x 30 3/8
22 x 30	489	24 3/8 x 32 3/8
22 x 32	520	24 3/8 x 34 3/8
22 x 36	585	24 3/8 x 38 3/8
22 x 38	618	24 3/8 x 40 3/8
22 x 40	650	24 3/8 x 42 3/8
22 x 42	684	24 3/8 x 44 3/8
24 x 24	426	26 3/8 x 26 3/8
24 x 26	461	26 3/8 x 28 3/8
24 x 27	479	26 3/8 x 29 3/8
24 x 30	532	26 3/8 x 32 3/8
24 x 32	569	26 3/8 x 34 3/8
24 x 36	640	26 3/8 x 38 3/8
24 x 40	710	26 3/8 x 42 3/8
24 x 42	745	26 3/8 x 44 3/8
24 x 45	800	26 3/8 x 47 3/8
24 x 48	850	26 3/8 x 50 3/8
26 x 26	500	28 3/8 x 28 3/8
26 x 28	539	28 3/8 x 30 3/8
26 x 30	578	28 3/8 x 32 3/8
26 x 32	615	28 3/8 x 34 3/8
26 x 34	655	28 3/8 x 36 3/8
26 x 36	694	28 3/8 x 38 3/8
28 x 28	589	30 3/8 x 30 3/8
28 x 30	630	30 3/8 x 32 3/8
28 x 32	672	30 3/8 x 34 3/8
28 x 34	715	30 3/8 x 36 3/8
28 x 36	756	30 3/8 x 38 3/8
28 x 40	840	30 3/8 x 42 3/8
30 x 30	674	32 3/8 x 32 3/8
30 x 32	720	32 3/8 x 34 3/8
30 x 34	765	32 3/8 x 36 3/8
30 x 36	809	32 3/8 x 38 3/8
30 x 40	898	32 3/8 x 42 3/8
30 x 42	944	32 3/8 x 44 3/8
30 x 48	1080	32 3/8 x 50 3/8
36 x 36	970	38 3/8 x 38 3/8
36 x 40	1080	38 3/8 x 42 3/8
36 x 42	1135	38 3/8 x 44 3/8
36 x 48	1295	38 3/8 x 50 3/8
38 x 42	1200	40 3/8 x 44 3/8

NOTICE

Hart & Cooley Registers have 15 to 20 per cent more free air space than other makes of registers.

List Prices on Registers, Faces, and Borders

Black Japanned, Electroplated Oxidized Copper, Electroplated Brass, Bronze & Nickel & White Japanned Finishes

CLASS NUMBERS 200, 250, 275

Floor Opening	Black Japanned			Electroplated Oxidized Copper			Electroplated, Brass, Bronze, Nickel		
	No. 200 Complete Register without Border	No. 250 Face Plate Only	No. 275 Border Only	No. 200 Complete Register without Border	No. 250 Face Plate Only	No. 275 Border Only	No. 200 Complete Register without Border	No. 250 Face Plate Only	No. 275 Border Only
4 x 6	$ 1.40	$ .55	$ 1.15	$ 2.00	$ 1.15	$ 1.75	$ 2.20	$ 1.35	$ 2.10
4 x 8	1.50	.60	1.15	2.20	1.30	1.85	2.40	1.50	2.15
4 x 10	1.55	.75	1.15	2.40	1.60	2.00	2.60	1.80	2.40
4 x 12	1.80	.95	1.35	2.80	2.15	2.55	3.10	2.45	3.00
4 x 15	3.00	1.20	1.90	4.00	2.70	3.40	4.30	3.00	4.00
4 x 18	4.00	1.30	2.75	5.00	3.20	4.65	5.40	3.60	5.00
4 x 22	5.00	2.25	3.15	6.50	4.25	5.15	7.00	4.75	6.00
4 x 24	6.00	2.75	3.75	7.50	4.75	5.75	8.10	5.35	7.00
6 x 6	1.50	.90	1.15	2.70	2.10	2.35	3.00	2.40	2.95
6 x 8	1.55	1.00	1.15	2.80	2.25	2.40	3.10	2.50	3.00
6 x 10	1.60	1.05	1.20	3.00	2.45	2.60	3.50	2.95	3.60
6 x 12	1.85	1.25	1.45	3.50	2.90	3.10	4.20	3.60	4.10
6 x 14	2.85	1.65	1.90	4.95	3.75	4.00	5.75	4.50	5.30
6 x 16	4.00	2.00	2.70	6.00	4.00	4.70	6.90	4.90	6.10
6 x 18	5.20	2.25	3.25	7.00	4.50	5.50	8.00	5.50	7.00
6 x 20	6.00	2.50	3.50	8.20	4.75	5.80	9.30	5.85	7.40
6 x 22	7.00	3.00	3.95	10.00	6.00	6.95	11.25	7.25	8.65
6 x 24	8.00	3.70	4.50	12.00	7.00	7.50	13.30	8.30	9.30
6 x 28	9.50	4.25	5.40	14.50	8.00	9.00	16.00	9.50	11.00
6 x 30	11.50	4.75	6.00	16.50	8.90	10.00	18.25	10.65	12.10
6 x 32	13.00	5.25	6.50	18.00	9.50	10.50	21.00	12.50	12.60
6 x 36	19.00	7.50	7.50	26.25	14.75	14.85	29.50	17.50	17.60
8 x 8	1.60	1.05	1.20	3.00	2.45	2.60	3.70	3.15	3.65
8 x 10	1.65	1.10	1.25	3.15	2.60	2.75	3.85	3.30	3.90
8 x 12	1.90	1.30	1.50	3.65	3.05	3.25	4.40	3.75	4.40
8 x 14	3.00	2.00	2.00	5.10	3.95	3.95	6.20	5.10	5.60
8 x 16	4.50	2.70	2.70	6.75	5.00	5.00	8.00	6.25	7.00
8 x 18	6.60	3.50	3.50	9.40	6.00	6.00	10.70	7.30	8.00
8 x 20	8.70	3.90	3.90	11.70	6.90	6.90	13.00	8.25	9.00
8 x 22	10.75	4.65	4.80	14.50	8.00	8.00	15.00	9.50	10.00
8 x 24	11.25	4.70	4.70	15.25	8.70	8.70	17.00	10.50	11.10
8 x 28	13.60	5.40	5.40	17.75	9.55	9.55	19.75	11.50	12.20
8 x 30	14.70	6.30	6.30	19.50	10.50	10.50	21.60	12.60	13.50
8 x 36	22.50	9.25	9.25	29.50	15.00	15.00	32.50	20.00	19.00

All sizes of Face Plates larger than 12 x 15 are braced and made extra strong for floor use.

List Prices on Registers, Faces, and Borders

Black Japanned, Electroplated Oxidized Copper, Electroplated Brass, Bronze & Nickel & White Japanned Finishes

CLASS NUMBERS 200, 250, 275

	Black Japanned			Electroplated Oxidized Copper			Electroplated, Brass, Bronze, Nickel		
Floor Opening	No. 200 Complete Register without Border	No. 250 Face Plate Only	No. 275 Border Only	No. 200 Complete Register without Border	No. 250 Face Plate Only	No. 275 Border Only	No. 200 Complete Register without Border	No. 250 Face Plate Only	No. 275 Border Only
9 x 12	$ 2.10	$ 1.45	$ 1.65	$ 4.00	$ 3.35	$ 3.35	$ 5.10	$ 4.45	$ 5.00
9 x 14	3.10	2.15	2.15	5.20	4.25	4.25	6.50	5.50	5.95
9 x 16	4.70	2.70	2.70	7.15	5.15	5.30	8.55	6.55	7.10
9 x 18	6.65	3.60	3.60	9.35	6.30	6.30	11.00	7.95	8.40
9 x 20	8.75	4.30	4.30	11.85	7.40	7.40	13.65	9.20	9.70
9 x 22	10.35	4.50	4.50	13.95	8.10	8.10	16.00	10.15	10.50
9 x 24	12.00	5.30	5.30	16.00	9.30	9.30	18.10	11.40	11.90
9 x 28	16.35	6.80	6.50	21.75	11.90	11.90	24.25	14.40	14.80
9 x 30	17.50	7.10	7.10	22.50	12.10	12.10	25.25	14.80	15.10
10 x 10	2.35	1.65	1.70	4.35	3.65	3.70	5.35	4.65	5.20
10 x 12	2.40	1.70	1.75	4.40	3.70	3.75	5.50	4.80	5.35
10 x 14	3.15	2.20	2.20	5.25	4.30	4.30	6.55	5.60	6.00
10 x 16	4.85	2.95	2.95	7.20	5.30	5.30	8.60	6.70	7.20
10 x 18	6.70	3.70	3.70	9.45	6.45	6.45	11.00	8.00	8.55
10 x 20	8.90	4.35	4.35	12.00	7.50	7.50	13.80	9.30	9.80
10 x 22	10.40	4.90	4.90	14.50	9.00	9.00	16.50	11.00	11.00
10 x 24	12.15	5.35	5.35	16.25	9 45	9.45	18.50	12.00	12.15
10 x 28	18.50	7.75	8.00	24.50	13.75	14.00	26.25	16.50	16.50
10 x 30	19.50	8.00	8.00	25.50	14.00	14.00	28.00	16.75	17.00
10 x 36	25.75	10.00	10.00	32.75	17.25	17.25	35.25	22.75	21.00
10 x 40	35.00	15.50	15.50	45.00	25.00	25.00	48.00	31.50	27.00
12 x 12	4.00	2.70	2.70	6.35	5.05	5.05	7.90	6.60	7.10
12 x 14	4.35	2.80	2 80	6.85	5.35	5.35	8.25	6.75	7.35
12 x 15	4.50	2.90	2.90	7.00	5.40	5.40	8.50	6.90	7.60
12 x 16	5.60	3.50	3.50	8.25	6.15	6.15	9.75	7.65	8.25
12 x 17	6.35	3.80	3.80	9.00	6.45	6.45	10.60	8.05	8.65
12 x 18	6.80	3.90	3.90	9.55	6.65	6.65	11.25	8.35	9.00
12 x 20	9.00	4.50	4.50	12.20	7.60	7.60	14.10	9.50	9.90
12 x 22	10.50	5.00	5.00	14.50	9.00	9.00	17.05	11.00	11.25
12 x 24	12.25	5.50	5.50	16.30	9.55	9.55	18.60	12.10	12.25
12 x 30	20.00	8.20	8.20	26.00	14.20	14.20	29.00	18.00	17.00
12 x 40	35.00	15.50	15.50	45.00	25.00	25.00	50.00	33.00	27.00
12 x 48	46.00	20.00	20.00	60.00	33.25	31.65	69.50	46.50	35.75
14 x 14	7.90	4.05	4.05	11.00	7.15	7.15	14.30	9.60	10.00
14 x 16	8.50	4.30	4.30	11.50	7.30	7.30	16.50	11.00	11.00
14 x 18	9.00	4.50	4.50	12.00	7.50	7.50	18.50	12.00	12.15
14 x 20	9.50	4.80	4.80	13.00	8.50	8.50	20.50	13.00	12.75
14 x 22	10.50	5.00	5.00	14.50	9.00	9.00	22.50	14.50	13.50
14 x 24	14.90	6.90	6.90	19.50	11.50	11.50	26.00	16.50	15.00
14 x 30	27.50	10.75	10.75	33.00	18.00	18.00	37.50	25.00	21.60
14 x 34	31.75	13.75	13.75	41.25	23.25	23.25	46.00	30.50	25.00
14 x 36	36.00	16.00	16.00	45.00	25.00	25.00	50.00	33.00	27.00
14 x 40	41.00	18.00	18.00	54.00	31.00	30.00	60.00	41.50	33.00
14 x 48	46.00	22.50	22.50	69.00	39.25	36.65	79.50	55.00	41.75

List Prices on Registers, Faces, and Borders

Black Japanned, Electroplated Oxidized Copper, Electroplated Brass, Bronze & Nickel & White Japanned Finishes

CLASS NUMBERS 200, 250, 275

Floor Opening	Black Japanned			Electroplated Oxidized Copper			Electroplated, Brass, Bronze, Nickel		
	No. 200 Complete Register without Border	No. 250 Face Plate Only	No. 275 Border Only	No. 200 Complete Register without Border	No. 250 Face Plate Only	No. 275 Border Only	No. 200 Complete Register without Border	No. 250 Face Plate Only	No. 275 Border Only
16 x 16	$11.00	$ 5.10	$ 5.10	$15.00	$ 9.10	$ 9.10	$19.75	$12.80	$12.50
16 x 18	12.00	5.30	5.30	16.20	9.50	9.50	22.25	14.25	13.25
16 x 20	12.35	6.10	6.10	16.55	10.30	10.30	24.60	16.00	14.00
16 x 22	14.75	6.70	6.70	19.50	11.50	11.50	28.00	18.00	16.00
16 x 24	15.00	7.00	7.00	20.00	12.00	12.00	29.60	19.25	17.10
16 x 28	24.60	10.00	10.00	30.80	16.20	16.20	35.00	22.75	18.80
16 x 30	27.90	11.00	11.00	35.00	18.25	18.25	37.50	25.00	21.60
16 x 32	31.00	13.10	13.10	38.25	20.35	20.35	42.00	27.50	22.00
16 x 36	36.00	16.00	16.00	45.00	25.00	25.00	50.00	33.00	27.00
16 x 42	45.00	21.00	22.00	57.00	34.00	34.00	61.00	42.50	38.00
18 x 18	18.50	7.20	7.20	23.75	12.45	12.45	26.00	16.50	15.00
18 x 20	19.50	7.60	7.60	24.75	12.85	12.85	29.00	18.00	17.00
18 x 22	21.00	8.00	8.00	26.70	14.00	14.00	32.50	21.00	18.40
18 x 24	21.50	8.35	8.35	27.75	14.60	14.60	34.25	22.50	18.75
18 x 28	28.90	11.50	11.50	36.50	20.00	20.00	41.50	27.75	22.10
18 x 30	31.25	13.25	13.25	38.00	21.00	21.00	43.00	28.50	22.70
18 x 36	38.00	17.25	17.25	48.50	28.10	26.00	54.00	36.00	28.00
18 x 38	43.00	18.50	18.50	54.00	29.50	28.50	59.00	39.00	31.50
20 x 20	19.75	8 00	8.00	24.75	13.00	13.00	32.40	21.20	18.10
20 x 22	21.60	8.40	8.40	27.60	14.40	14.40	35.70	23.50	19.00
20 x 24	22.00	8.60	8.60	28.20	14.80	14.80	39.00	25.50	21.70
20 x 26	23.50	9.50	9.50	32.00	17.50	17.50	42.00	27.50	22.00
20 x 28	28.90	11.50	11.50	37.40	20.00	20.00	45.50	30.00	24.50
20 x 30	33.50	11.60	13.50	43.00	23.50	23.50	49.00	32.50	26.00
20 x 32	37.50	17.10	17.10	48.50	28.10	26.00	52.00	34.00	27.50
20 x 36	43.00	18.50	18.50	54.00	29.50	28.50	59.00	39.00	31.50
20 x 48	62.50	26.00	26.00	78.50	42.00	42.00	81.00	52.50	52.50
22 x 22	28.50	11.40	11.40	36.50	19.40	19.40	41.00	27.00	21.75
22 x 24	29.50	11.80	11.80	37.90	20.20	20.20	44.00	29.00	23.00
22 x 26	31.00	13.10	13.10	41.00	23.00	23.00	48.00	32.00	25.50
22 x 28	33.90	13.90	13.90	44.00	24.00	24.00	52.00	34.00	27.50
22 x 30	36.00	16.00	16.00	46.50	26.50	25.50	55.00	36.50	28.75
22 x 32	42.00	17.50	17.50	54.00	29.50	28.50	59.00	39.00	31.50
22 x 36	47.50	20.50	20.50	60.50	35.00	31.75	66.00	44.50	34.00
22 x 38	52.00	22.50	22.50	65.50	37.50	34.50	70.00	47.00	36.00
22 x 40	61.00	25.00	25.00	70.00	42.00	34.60	76.00	50.00	38.00
22 x 42	64.00	27.00	27.00	75.00	43.00	35.00	82.50	53.50	39.50

List Prices on Registers, Faces, and Borders

Black Japanned, Electroplated Oxidized Copper, Electroplated Brass, Bronze & Nickel & White Japanned Finishes

CLASS NUMBERS 200, 250, 275

	Black Japanned			Electroplated Oxidized Copper			Electroplated, Brass, Bronze, Nickel		
Floor Opening	No. 200 Complete Register without Border	No. 250 Face Plate Only	No. 275 Border Only	No. 200 Complete Register without Border	No. 250 Face Plate Only	No. 275 Border Only	No. 200 Complete Register without Border	No. 250 Face Plate Only	No. 275 Border Only
24 x 24	$30.00	$12.00	$12.00	$40.00	$22.00	$22.00	$49.00	$32.50	$26.00
24 x 26	32.00	14.00	14.00	44.00	24.00	24.00	54.00	35.50	28.00
24 x 28	33.95	14.00	14.00	45.00	25.00	25.00	56.00	37.00	29.00
24 x 30	38.00	17.25	17.25	50.00	29.25	28.25	62.00	41.50	32.00
24 x 32	42.50	18.00	18.00	55.50	31.00	30.00	66.00	44.50	34.00
24 x 36	50.00	22.00	22.00	65.50	37.50	34.25	74.00	50.30	36.50
24 x 40	61.00	25.00	25.00	79.00	43.00	36.50	86.00	58.50	41.50
24 x 42	64.00	27.00	27.00	86.00	45.50	38.00	90.00	61.00	44.00
24 x 48	80.00	33.00	30.00	104.00	57.00	57.00	118.00	80.00	70.00
26 x 26	37.00	16.50	16.50	48.00	27.50	26.00	64.00	42.00	32.00
26 x 28	37.25	17.00	17.00	49.25	29.00	28.00	66.00	44.50	34.00
26 x 30	43.00	19.50	19.50	56.00	32.00	30.00	70.00	47.00	36.00
26 x 32	46.00	20.80	20.80	59.00	35.00	33.00	74.50	50.00	39.50
26 x 34	49.00	22.10	22.10	63.00	36.50	34.50	79.00	54.00	42.00
26 x 36	56.00	25.00	25.00	76.00	45.00	36.00	92.00	63.00	45.00
28 x 28	44.00	19.00	19.00	57.50	32.50	31.00	72.00	49.00	36.40
28 x 30	48.50	21.00	21.00	61.50	35.50	32.00	76.00	52.50	37.00
28 x 32	53.00	24.50	24.50	68.00	39.50	35.00	84.00	55.00	40.50
28 x 34	58.00	25.80	25.80	77.00	44.00	36.00	88.00	59.00	43.00
28 x 36	64.00	27.00	27.00	86.00	49.00	37.00	92.00	63.00	45.00
28 x 40	68.00	30.00	28.50	96.00	54.00	42.00	100.00	71.00	51.00
30 x 30	49.00	21.50	21.50	65.00	37.00	34.00	85.00	56.00	41.00
30 x 32	54.50	25.00	25.00	73.00	42.00	36.00	90.00	60.00	43.00
30 x 34	62.00	26.00	26.00	85.00	49.00	39.00	97.00	67.00	46.00
30 x 36	67.50	28.50	28.50	90.00	51.00	41.00	102.00	70.00	48.00
30 x 40	72.50	31.00	29.00	100.00	55.50	48.00	110.00	79.00	54.00
30 x 42	77.50	33.00	29.00	102.00	57.50	50.50	119.00	87.00	60.00
30 x 48	95.00	39.00	31.00	124.00	68.00	60.00	136.00	94.00	72.00
36 x 36	80.00	35.00	29.50	105.00	60.00	54.50	127.00	83.00	66.00
36 x 40	105.00	44.00	32.10	135.00	74.00	62.10	142.00	95.00	76.00
36 x 42	112.00	46.00	34.00	143.00	77.00	65.00	150.00	96.50	80.50
36 x 48	132.00	54.00	40.00	168.00	90.00	76.00	173.00	103.00	87.00
38 x 38	100.00	43.50	32.00	130.00	71.00	59.50	145.00	95.50	77.00
38 x 40	112.00	46.00	34.00	142.00	76.00	64.00	153.00	97.00	81.50
38 x 42	120.00	50.00	36.00	155.00	85.00	71.00	160.00	100.00	83.50

Price-List of Registers and Faces

Either Steel or Cast Iron

For Wall or Ceiling — White Japanned

We cannot guarantee cast-iron registers against breakage

Floor Opening	Complete Register without Border	Face Plate Only	Floor Opening	Complete Register without Border	Face Plate Only	Floor Opening	Complete Register without Border	Face Plate Only
4 x 6	$ 1.70	$ .85	10 x 20	$10.50	$ 5.75	20 x 20	$21.75	$10.00
4 x 8	1.80	.90	10 x 22	12.00	6.25	20 x 22	23.75	10.55
4 x 10	1.90	1.10	10 x 24	13.40	6.60	20 x 24	24.20	10.80
4 x 12	2.20	1.35	10 x 30	21.45	9.95	20 x 26	25.85	11.85
4 x 15	3.60	1.80				20 x 28	31.80	14.40
4 x 18	4.65	1.95	12 x 12	4.80	3.50	20 x 30	36.85	16.85
4 x 22	6.00	3.25	12 x 14	5.25	3.65	20 x 32	41.25	20.85
4 x 24	7.00	3.75	12 x 15	5.40	3.80	20 x 34	46.00	21.50
			12 x 16	6.70	4.60	20 x 36	47.30	22.80
6 x 6	1.80	1.20	12 x 17	7.60	5.05			
6 x 8	1.85	1.30	12 x 18	8.15	5.25	22 x 22	31.25	14.25
6 x 10	1.95	1.40	12 x 19	9.00	5.50	22 x 24	32.45	14.75
6 x 12	2.25	1.60	12 x 20	10.80	6.30	22 x 26	34.10	16.20
6 x 14	3.45	2.10	12 x 22	13.00	6.50	22 x 28	37.30	17.30
6 x 16	4.80	2.80	12 x 24	13.50	6.75	22 x 30	39.60	19.60
6 x 18	6.25	3.30	12 x 30	22.00	10.20	22 x 32	46.20	21.70
6 x 20	7.20	3.70	12 x 32	26.95	12.20	22 x 36	52.25	25.25
6 x 22	8.40	4.40	12 x 36	29.40	12.90	22 x 38	57.20	27.70
6 x 24	9.60	5.30	12 x 40	38.50	19.00	22 x 40	68.00	31.00
6 x 28	11.00	5.75				22 x 42	70.40	33.40
6 x 30	13.00	6.25						
6 x 32	14.25	6.50	14 x 14	9.45	5.60	24 x 24	33.00	15.00
			14 x 15	9.90	5.85	24 x 26	36.50	17.00
8 x 8	1.95	1.40	14 x 16	10.20	6.00	24 x 30	41.80	21.05
8 x 10	2.00	1.45	14 x 18	10.80	6.30	24 x 32	46.75	22.25
8 x 12	2.30	1.70	14 x 20	11.25	6.40	24 x 34	53.00	25.50
8 x 14	3.60	2.60	14 x 22	12.00	6.50	24 x 36	55.00	27.00
8 x 16	5.40	3.60	14 x 24	16.40	8.40	24 x 38	60.00	30.00
8 x 18	7.90	4.80	14 x 48	50.60	24.60	24 x 40	68.00	31.00
8 x 20	10.40	5.60				24 x 42	73.00	33.00
8 x 22	12.20	5.90	16 x 16	12.20	6.20	26 x 26	40.00	20.00
8 x 24	12.40	6.00	16 x 18	13.20	6.50	26 x 28	40.95	20.70
8 x 30	16.30	7.90	16 x 20	13.60	7.35	26 x 30	43.00	21.00
			16 x 22	16.20	8.15	26 x 32	46.00	22.50
9 x 12	2.55	1.90	16 x 24	16.50	8.50	26 x 34	49.50	24.00
9 x 14	3.70	2.75	16 x 26	25.00	12.00			
9 x 16	5.65	3.65	16 x 28	27.05	12.45	28 x 28	48.40	23.40
9 x 18	8.00	4.95	16 x 30	30.70	13.80	28 x 30	53.35	25.85
9 x 20	10.25	5.65	16 x 32	34.10	16.20	28 x 32	58.30	29.80
9 x 22	11.50	6.15	16 x 36	39.60	19.60	28 x 34	64.20	31.70
9 x 24	13.20	6.50				28 x 36	70.40	33.40
9 x 28	18.00	8.45				28 x 40	74.50	37.50
9 x 30	19.25	8.85	18 x 18	20.35	9.05			
			18 x 20	21.45	9.55	30 x 30	53.90	26.40
10 x 10	2.85	2.15	18 x 22	23.00	10.00	30 x 32	59.00	27.50
10 x 12	2.90	2.20	18 x 24	23.65	10.50	30 x 34	69.50	33.75
10 x 14	3.80	2.85	18 x 28	33.00	16.00	30 x 36	74.25	35.25
10 x 16	5.85	3.95	18 x 30	34.35	16.35	30 x 40	80.00	39.00
10 x 18	8.05	5.05	18 x 36	41.80	21.05	30 x 42	85.25	40.75

No. 150 Series. Baseboard Register

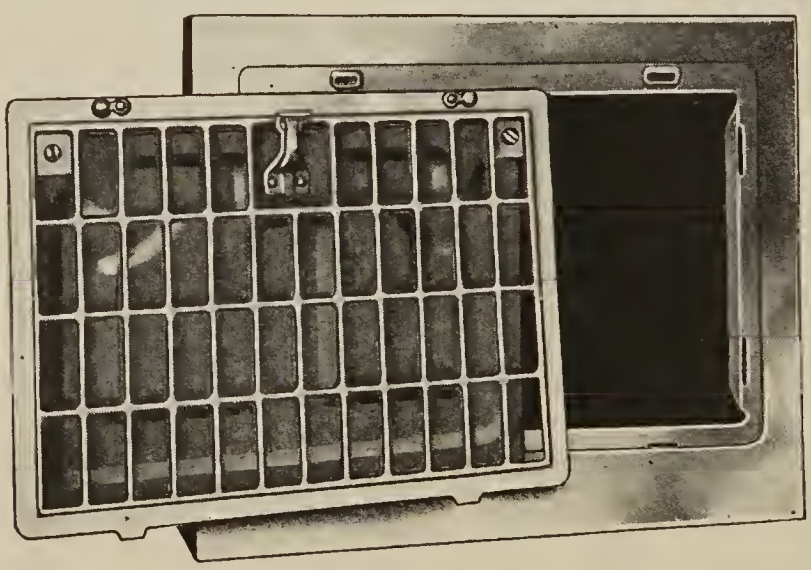
QUICK DETACHABLE FACE

CLASSES NOS. 151¼, 152¼, 153¼, 155¼

The No. 150 series is a two-piece register with frame and face separable. The frame is provided with integral flanges having holes for tin loops. The face with valve attached is fastened by means of lugs at bottom and two locking clips at top, a quarter turn of which releases face from frame. Wood screws are furnished for attaching to studding. The single valve is controlled by adjustable friction hinges which have been demonstrated through many years' usage to be quiet in operation as well as dependable.

Height from floor to opening, 2¼ inches.

Last figure and fraction of class number indicates projection from wall at base.



List Prices No. 150 Series

CLASS 151½

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
8 x 10	50	$2.00	$2.35	$3.50	$3.85	26	105
8 x 12	60	2.40	2.90	3.95	4.35	24	110
9 x 12	71	2.50	3.00	4.00	4.40	24	120

CLASS 152¼

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
8 x 10	50	$2.00	$2.35	$3.50	$3.85	20	90
9 x 12	71	3.00	3.50	4.50	4.90	20	105

CLASS 153¼

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
10 x 12	75	$4.00	$4.60	$5.75	$6.35	16	100
11 x 13	96	4.50	5.25	6.75	7 50	18	115

CLASS 155¼

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
11 x 13	96	$5.25	$6.00	$7.50	$8.25	14	95
12 x 14	106	6.50	7.50	8.50	9.50	12	100

AREA OF LEADER PIPE

8″	9″	10″	12″	14″	
50.2	63.6	78.5	113	153.9	Sq. in.

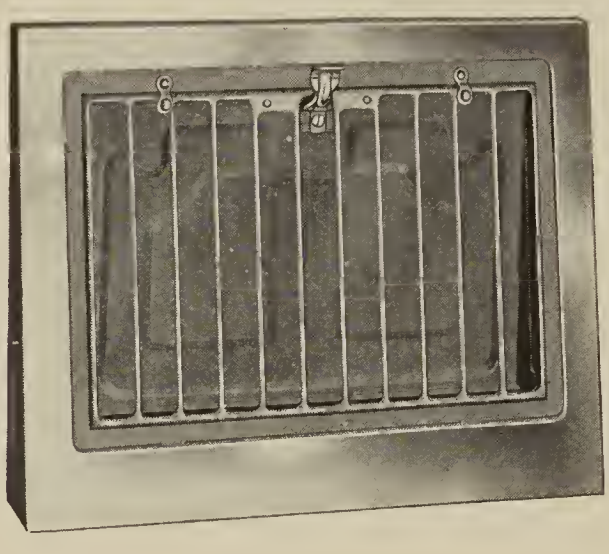
*For sand finishes, add 10 per cent to the above prices.

No. 170 Series. Baseboard Register

With Quick Detachable Face

CLASSES NOS. 171¼, 172¼, 173¼, 174¾, 175¼, 177½

Patent applied for



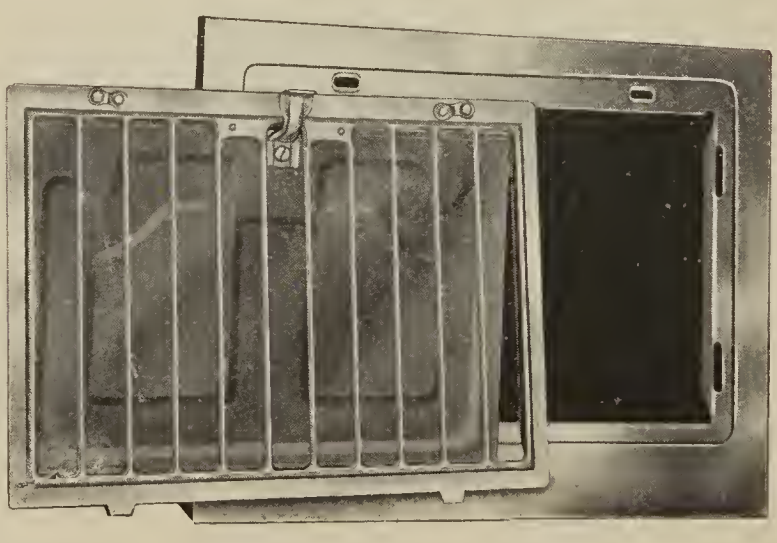
The No. 170 series is a two-piece register similar in construction to our No. 150 with the exception of face which is our new vertical bar type. This register has the greatest possible free air opening consistent with a proper guard and beauty of design. Smaller sizes can be used with this improved face than in any other design of register, and with equal efficiency.

On opposite page will be found the air capacity of each size.

Height from floor to opening, 2¼ inches.

The last figure and fraction of class number indicates projection from wall at base.

Wood screws furnished for attaching to studding.



List Prices No. 170 Series

CLASS 171¼

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
8 x 10	66	$2.00	$2.35	$3.50	$3.85	24	110
8 x 12	81	2.40	2.90	3.95	4.35	24	115
9 x 12	92	2.50	3.00	4.00	4.40	24	125

CLASS 172¼

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
8 x 10	66	$2.00	$2.35	$3.50	$3.85	20	95
8 x 12	81	2.40	2.90	3.95	4.35	20	105
9 x 12	92	3.00	3.50	4.50	4.90	20	110

CLASS 173¼

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
8 x 12	81	$3.00	$3.50	$4.50	$4.90	16	90
10 x 12	102	4.00	4.60	5.75	6.35	18	110
10 x 13	110	4.20	5.00	6.20	7.00	16	105
11 x 13	127	4.50	5.25	6.75	7.50	16	100

CLASS 174¾

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
10 x 13	110	$4.85	$5.50	$7.00	$8.00	18	110

CLASS 175¼

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
11 x 13	127	$5.25	$6.00	$7.50	$8.25	16	115
12 x 14	149	6.50	7.50	8.50	9.50	14	110

CLASS 177½

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
12 x 14	149	$9.00	$10.00	$12.00	$12.50	8	95

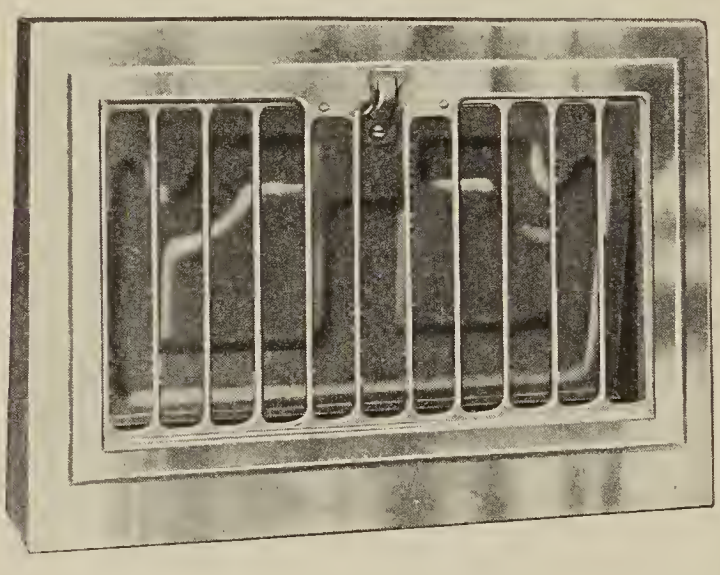
*For sand finishes, add 10 per cent to the above prices.

No. 190 Series. Baseboard Register

Non-Detachable Face

CLASSES NOS. 191¼, 192¼, 193¼, 194¾, 195¼

Patent applied for



Don't forget us when in need of—

Wall Ties,
Flashing Shingles,
Metal Lath,
Corner Bead,
Building Corners,
Asphalt Roofing and
Building Papers

The No. 190 series follows the detail construction of our No. 170, except that it is a one-piece register—face not detachable. The flanges are adapted for use with the same stackheads as used in our No. 170 series. Height from floor to opening 2¼ inches. The last figure and fraction of class number indicates projection from wall at base. Wood screws furnished for attaching to studding.

List Prices No. 190 Series

CLASS 191¼

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
8 x 10	66	$2.00	$2.35	$3.50	$3.85	26	90
8 x 12	81	2.40	2.90	3.95	4.35	24	95
9 x 12	92	2.50	3.00	4.00	4.40	24	100

CLASS 192¼

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
8 x 10	66	$2.00	$2.35	$3.50	$3.85	20	70
8 x 12	81	2.40	2.90	3.95	4.35	20	80
9 x 12	92	3.00	3.50	4.50	4.90	20	95

CLASS 193¼

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
8 x 12	81	$3.00	$3.50	$4.50	$4.90	18	85
10 x 12	102	4.00	4.60	5.75	6.35	18	90
10 x 13	110	4.20	5.00	6.20	7.00	18	95
11 x 13	127	4.50	5.25	6.75	7.50	16	95

CLASS 194¾

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
10 x 13	110	$4.85	$5.50	$7.00	$8.00	18	105

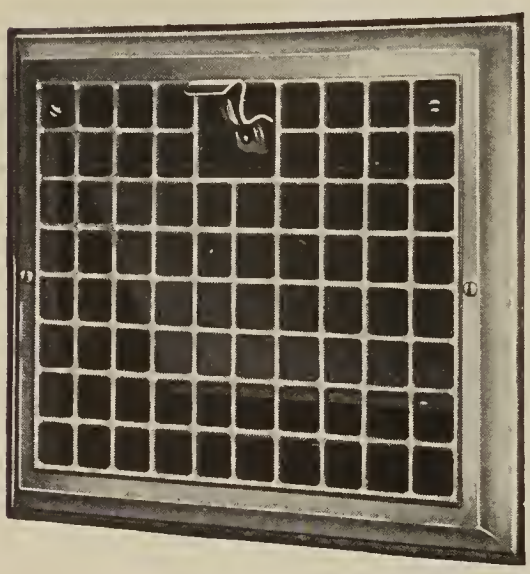
CLASS 195¼

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
11 x 13	127	$5.25	$6.00	$7.50	$8.25	16	115
12 x 14	149	6.50	7.50	8.50	9.50	14	110

*For sand finishes, add 10 per cent to the above prices.

Nos. 340 and 350. Side Wall Registers

With Convex Face

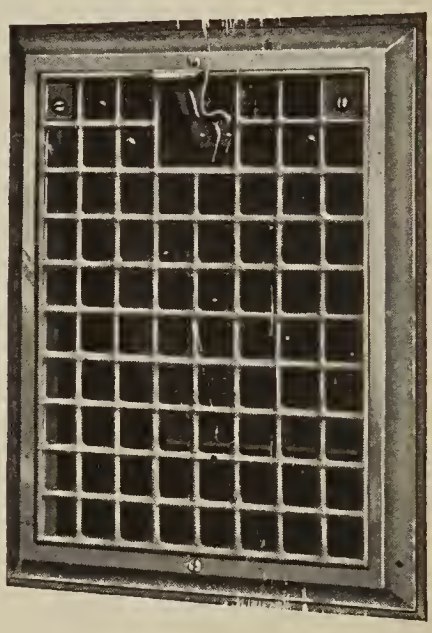


No. 340—Sets Horizontally

The No. 340 and No. 350 registers are designed for use in the side wall above the baseboard.

The convex face adds to the beauty of design and serves to cover inequalities of plaster close to the opening.

The single valve operation is the same as used on our baseboard registers.



No. 350—Sets Vertically

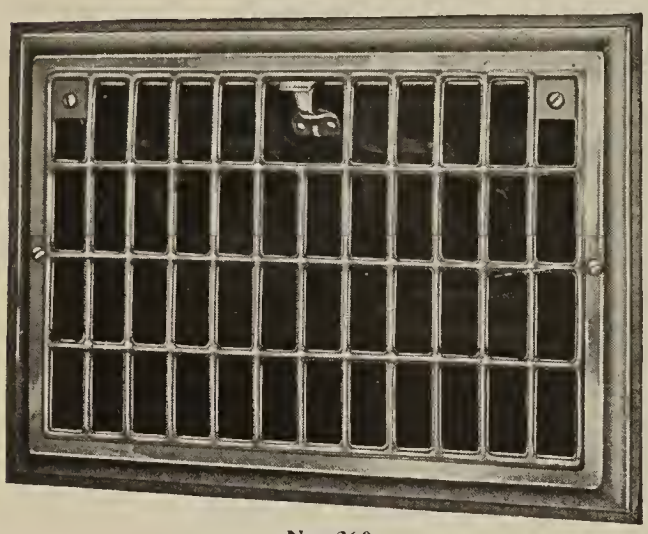
List Prices

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
8 x 10	44	$1.65	$2.00	$3.15	$3.85	30	100
8 x 12	53	1.90	2.30	3.65	4.40	30	110
9 x 12	60	2.10	2.55	4.00	5.10	30	115
10 x 12	66	2.40	2.90	4.40	5.50	30	120
10 x 14	78	3.15	3.80	5.25	6.55	24	110

*For sand finishes, add 10 per cent to the above prices.

Nos. 360 and 370. Single Valve Side Wall Registers

With Convex Face



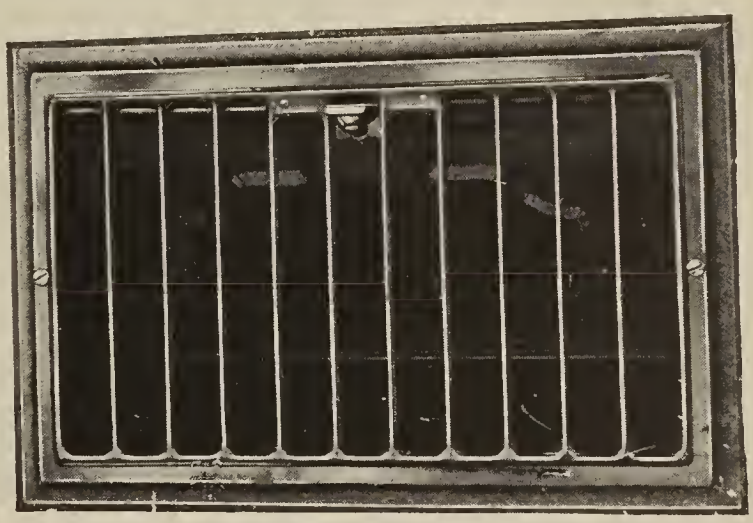
No. 360

The No. 360 register is identical with No. 340 except for the design of face which is perforated with oblong holes to match our No. 150 line of Baseboard Registers. It is made in sizes to set horizontally *only*. A vertical setting is unnecessary as the air capacity in the horizontal type is ample to transmit all the air that can be fed to it.

List Prices

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
8 x 10	53	$1.65	$2.00	$3.15	$3.85	30	100
8 x 12	64	1.90	2.30	3.65	4.40	30	115
9 x 12	71	2.10	2.55	4.00	5.10	30	120

The No. 370 register is identical with No. 340 except for the design of face which is of the vertical bar type to match our No. 170 line of Baseboard Registers. Because of its large air capacity, a vertical setting is unnecessary, and we make it in horizontal type only.



No. 370

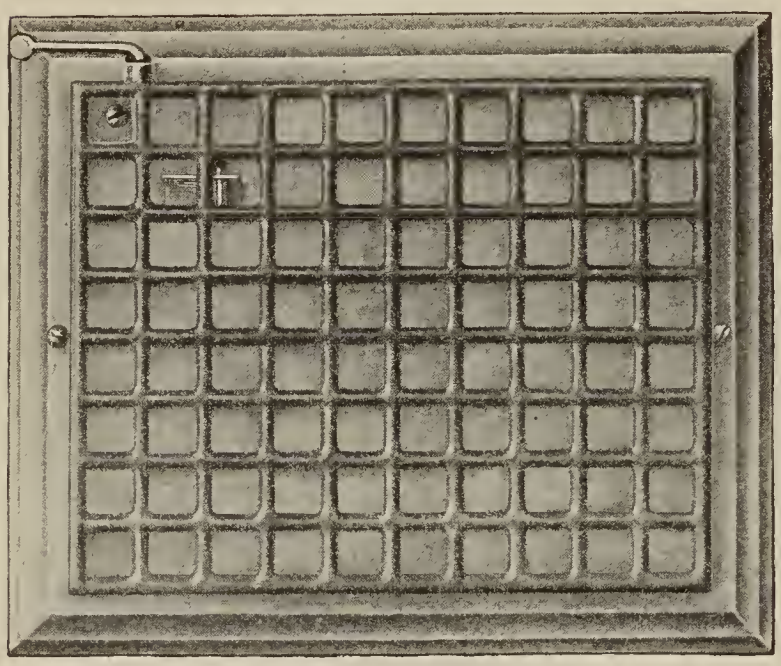
List Prices

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
8 x 10	64	$1.65	$2.00	$3.15	$3.85	30	100
8 x 12	79	1.90	2.30	3.65	4.40	30	115

*For sand finishes, add 10 per cent to the above prices.

No. 345 Reversible Side Wall Register

With Convex Face

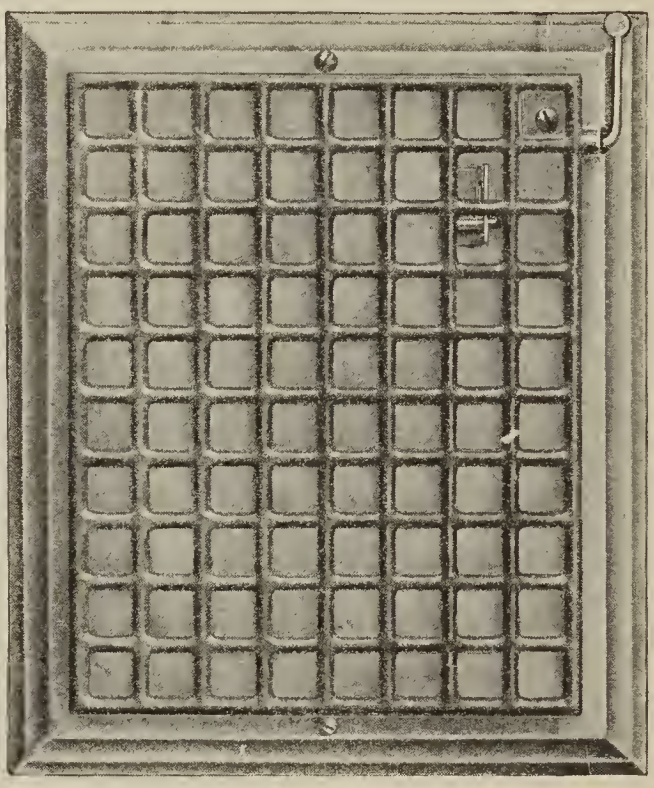


No. 345 Set Horizontal

Friction hinge is so constructed that it will hold valve in any desired position and can be easily adjusted by tightening or loosening adjusting screws.

The No. 345 register, designed for use in the side wall above the baseboard, is a reversible register and may be used either in a horizontal or vertical setting simply by removing two screws.

The operating device is made so that when register valve is closed the handle lies flat against register.



No. 345 Set Vertical

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
8 x 10	44	$1.65	$2.00	$3.15	$3.85	30	100
8 x 12	53	1.90	2.30	3.65	4.40	30	110
9 x 12	60	2.10	2.55	4.00	5.10	30	115
10 x 12	66	2.40	2.90	4.40	5.50	30	120

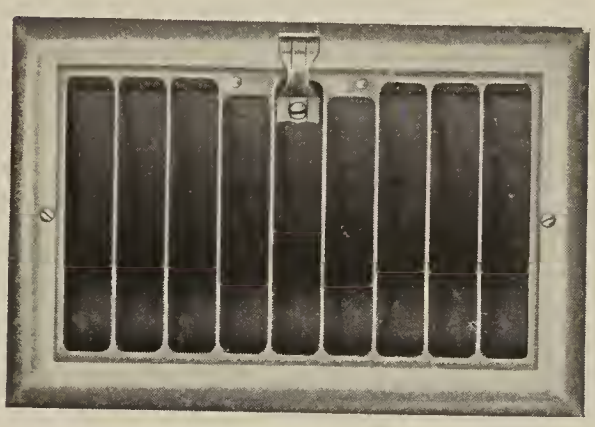
*For sand finishes, add 10 per cent to the above prices.

No. 377 Single Valve Side Wall Register

Patent applied for

With Convex Face and Curved Back Plate

Sizes 6 x 10 and 6 x 12 only



Class No. 377

Our Bar type of face with its extraordinary free air capacity, permits the use of above small sizes of side wall registers.

Our tests have demonstrated that 6 x 10 and 6 x 12 sizes in our No. 377, illustrated on this page, will deliver into the room all of the warm air that can be delivered through 10 inch and 12 inch wall stacks.

The area of a 10 inch stack cannot exceed 39 square inches. Our 6 x 10 No. 377 register has 47 square inches free area.

The area of a 12 inch stack cannot exceed 46 square inches. Our 6 x 12 No. 377 register has 57 square inches free area.

In addition to this free air capacity considerably in excess of the stack area, we facilitate the free passage of air through this new type of register, by means of a curved backplate or valve.

This register will deliver warm air more freely into the room and with a considerable saving in the cost. It matches in design our No. 170 and 190 Baseboard Registers, and the valve is operated in the same manner.

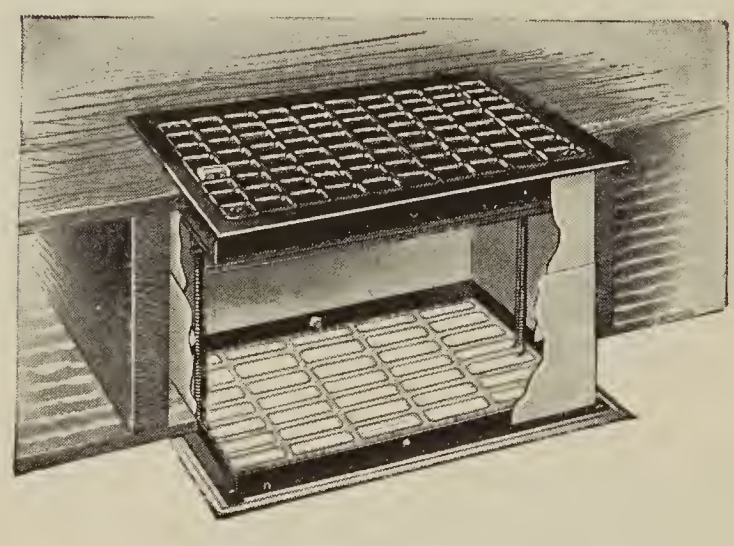
List Prices

Size	Free Air Capacity Face Sq. In.	Black Japanned	White Japanned	Electroplated		Number in Case	Gross Weight Pounds
				*Ox. Copper	*Brass, Bronze, Nickel		
6 x 10	47	$1.50	$1.80	$2.85	$3.50	30	85
6 x 12	57	1.70	2.00	3.30	3.95	30	95

Note—Lacquered finishes same list as White Japanned.
*For sand finishes, add 10 per cent to the above prices.

No. 2250. Adjustable Ventilator

Patented



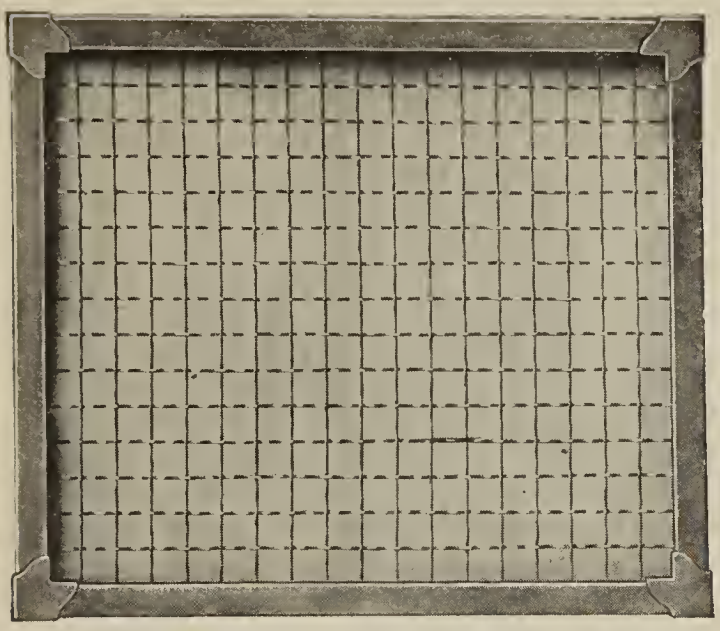
Made to carry surplus heat from a lower to an upper room. Ventilators are complete, ready for installation—each consisting of one black floor register, and one white face, attached to a tin box which is adjustable from 5 to 12 inches in depth.

Easy to install. Allows a maximum of heat to pass through. Packed one in a carton—fully assembled —collapsed to 5 inches.

List Prices

Size	Price	Size	Price	Size	Price
8 x 10	$ 4.40	**14 x 16**	$16.50	**16 x 20**	$22.00
8 x 12	4.80	**14 x 18**	18.00	**16 x 24**	26.00
9 x 12	5.40	**14 x 20**	19.25	**18 x 20**	23.95
10 x 12	6.40	**14 x 22**	20.60	**18 x 24**	37.45
10 x 14	7.60	**14 x 24**	25.00	**20 x 20**	31.25
12 x 14	10.00	**14 x 30**	28.00	**20 x 24**	38.75
12 x 15	10.40	**16 x 18**	21.50		

Wire Screens



Design No. 61
Diamond Mesh, Round Wire, Angle Frame.

Design No. 62
Square Mesh, Round Wire, Angle Frame.

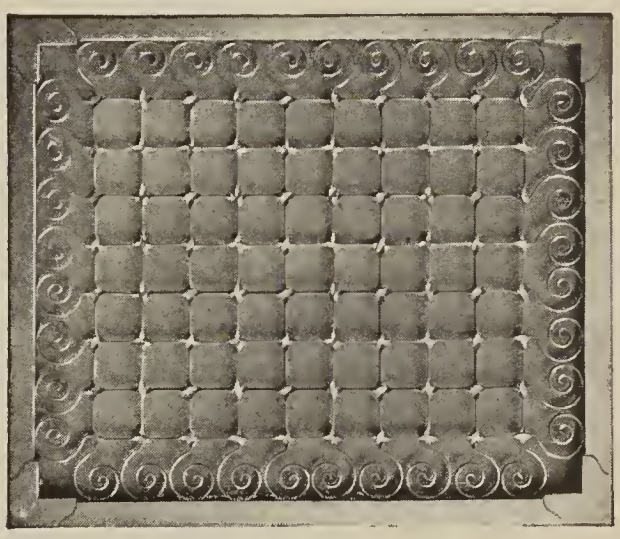
No. 62 Angle Iron Frame.

LIST PRICES DESIGNS 61 AND 62

Size of Mesh	Gauge of Wire	Size of Frame	LIST PER SQUARE FOOT		
			Black	Ox. Cop.	Br. Brass
2″	No. 10	1″ x 1″	$.80	$1.20	$1.50
1½″	No. 11	1″ x 1″	.90	1.40	1.75
1¼″	No. 12	1″ x 1″	1.00	1.60	2.00
1″	No. 13	1″ x 1″	1.10	1.75	2.50

Prices on special finishes quoted on application. Screens of less than 3 sq. ft. take list of 3 sq. ft.

Design No. 55
Square Mesh Center, Flat Wire, Scroll Border, Angle Frame.



No. 55 Grille.

LIST PRICES DESIGN 55

Size of Mesh	Size of Wire	Size of Frame	LIST PER SQUARE FOOT		
			Black	Ox. Cop.	Br. Brass
2″	5/16 x 1/16	1″ x 1″	$1.85	$2.55	$3.05
1½″	5/16 x 1/16	1″ x 1″	2.50	3.20	3.70

Prices on special finishes quoted on application. Screens of less than 3 sq. ft. take list of 3 sq. ft.

Important:

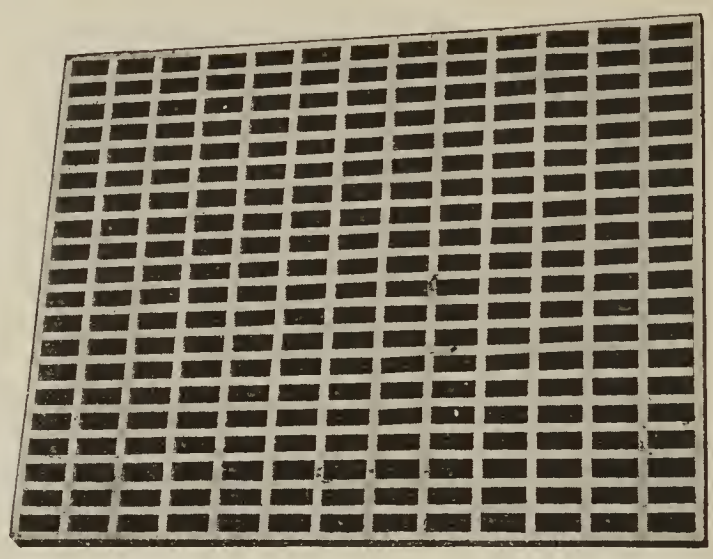
Always specify dimension of opening in which screens fit.
1″ x 1″ Angle Iron Frame Screens are regular.
If 1¼″ x 1¼″ frames are required add 5c net per lineal foot.
If 1½″ x 1½″ frames are required add 8c net per lineal foot.
Regular frames have ornamental iron corners.
If welded corners are required add 60c net per screen.

Angle iron frames are drilled for wood screws, and if so desired designate plainly size and location of holes and if countersunk.

Tiffin Wood Cold-Air Faces

TIFFIN WOOD Faces are made of the best selected grades of oak or other available hardwood, thoroughly seasoned and kiln dried.

Deep strips of face are 5/16 inch thick by 1 3/8 inches deep, cut to receive cross strips 5/16" x 5/16".



List Prices of Stock Sizes of Wood Cold-Air Faces

Floor Opening in Inches	Wood Cold Air Faces	Area of Air Space in Square Inches	Nearest Size of Round Pipe of Equivalent Area
6 x 24	$1.00	81	10 in.
6 x 30	1.25	101	12 in.
6 x 36	1.50	121	12 in.
6 x 40	1.67	134	12 in.
8 x 24	1.34	108	10 in.
8 x 30	1.67	134	12 in.
8 x 36	2.00	161	14 in.
8 x 40	2.23	179	14 in.
10 x 24	1.67	134	12 in.
10 x 30	2.09	168	12 in.
10 x 36	2.50	202	16 in.
10 x 40	2.78	224	16 in.
12 x 18	1.50	121	12 in.
12 x 20	1.66	135	12 in.
12 x 24	2.00	161	14 in.
12 x 30	2.50	202	14 in.
12 x 40	3.33	269	18 in.
12 x 50	4.17	336	20 in.
12 x 60	5.00	403	22 in.
14 x 18	1.75	141	14 in.
14 x 20	1.94	157	14 in.
14 x 22	2.13	173	14 in.
14 x 24	2.33	188	16 in.
14 x 30	2.92	235	16 in.
14 x 40	3.89	314	20 in.
14 x 50	4.86	392	22 in.
14 x 60	5.83	470	24 in.
15 x 30	3.13	250	18 in.
16 x 20	2.22	179	14 in.
16 x 24	2.67	215	16 in.
16 x 30	3.34	269	18 in.
16 x 36	4.00	323	20 in.
18 x 24	3.00	242	18 in.
18 x 30	3.75	303	20 in.
18 x 36	4.50	361	22 in.
20 x 24	3.33	269	18 in.
20 x 28	3.88	314	20 in.
20 x 30	4.17	336	20 in.
20 x 36	5.00	403	22 in.
22 x 28	4.29	345	22 in.
22 x 30	4.60	370	22 in.
24 x 24	4.00	323	20 in.
24 x 30	5.00	403	22 in.
24 x 36	6.00	484	24 in.
26 x 30	5.42	437	24 in.
28 x 30	5.84	471	24 in.
30 x 30	6.25	504	26 in.
30 x 36	7.50	605	28 in.
30 x 72	15.00		

Sizes in heavy type are carried in stock.

Every TIFFIN WOOD FACE is covered by our guarantee as to quality, material and workmanship.

Standard Code

Regulating the Installation of

Warm Air Furnaces

This Code is approved and issued by authority of the **National Warm Air Heating & Ventilating Association, National Association Sheet Metal Contractors, Western Warm Air Furnace and Supply Association**

ARTICLE NO. 1

Meaning of the Term "Warm Air Furnace Heating Plant"

Warm air furnace heating plants, to which this code refers, shall consist of one or more warm air furnaces, enclosed within casings, together with necessary appurtenances thereto, consisting of warm air pipes and fittings, cold air or recirculating pipes, boxes and fittings, smoke pipes and fittings, registers, borders and face plates, the same being intended for heating buildings in which they may be installed.

ARTICLE NO. 2

Provisions to be made in Building under Construction for Reception of Warm Air Furnace Heating Plants

Section 1. (a) The following provisions shall be made by the owner or building contractor, in any building wherein a warm air heating plant is to be installed.

(b) Where warm air register boxes, heads, pipes or stacks are to be installed, joists shall be set not less than sixteen (16″) inches on centers and shall be butted and not lapped. Studding shall set directly over and under joists, leaving a space of not less than fourteen (14″) inches between studs and joists. Wherever joists are cut, headers must be put in to support joists.

(c) All first story single or sub-floors shall be continuous. In all houses having studded exterior walls, these floors shall be extended to the outside sheathing and all spaces between studding shall be closed at the attic line.

Note 1. *It is strongly recommended that the attic be tightly floored to reduce heat losses.*

(d) All partition walls (or sections of these walls) in which heat stacks to second floor rooms are to be installed, shall be built of six (6″) inch studding to second story floor joists.

Chimneys

Section 2. (a) The owner shall provide a chimney for the furnace constructed in a manner to comply with the following specifications.

(b) The chimney must be absolutely smoke tight throughout its entire length, and must extend at least three feet (3′) above a flat roof or two feet above the ridges of peak roofs.

(c) If built of a single thickness of brick or of cement blocks, it shall be lined throughout its entire length with fire clay flue lining, having not less than three-fourths (¾″) inch thickness. Flue lining to be laid in mortar and made air tight.

(d) The furnace flue must have no other opening for attaching any fireplace, furnace, stove, range, water heater, gas or ventilating connection.

(e) If necessary to offset the flue, it must be done in such a manner as not to reduce the cross sectional area nor create a ledge or obstruction, where loose material may lodge.

(f) Its narrowest dimension shall not be less than eight (8″) inch and no flue smaller than 8″ x 8″ rectangular or eight (8″) inch diameter round will be considered suitable when hard coal is to be burned, or 8″ x 12″ rectangular or ten (10″) inch round for soft coal or wood.

Note 2. *It is recommended that the height above the furnace grate be not less than twenty six (26′) feet.*
Note 3. *It is strongly recommended that all new chimneys be built in strict accordance with the ordinance recommended by the National Board of Fire Underwriters.*

ARTICLE NO. 3

Methods for Determining Size of Warm Air Pipes, Wall Stacks and Furnaces for Use in a Residence

Method of Determining Size of Basement Warm Air Pipes.

(Read Explanatory Notes 4 to 11)

Section 1. First Floor Rooms.

Divide square feet of glass by 12,
Divide square feet of net outside wall by 60,
Divide cubic contents by 800,
Add together the above and muptiply by 9. The result is the area of the basement pipe.

The sum of:
Glass (sq. ft.) (*Note* 4) ÷ 12
Net Wall (sq. ft.) (*Note* 5) ÷ 60
Cubic Contents ÷ 800
× 8 = Area of Basm't. Pipe (*Note* 10)

Section 2. Second Floor Rooms.

Divide square feet of glass by 12,
Divide square feet of net outside wall by 60,
Divide cubic contents by 800,
Add together the above and multiply by 6. The result is the area of the basement pipe.

The sum of:
Glass (sq. ft.) (*Note* 4) ÷ 12
Net Wall (sq. ft.) (*Note* 5) ÷ 60
Cubic Contents ÷ 800
× 6 = Area of Basm't. Pipe (*Note* 10)

Section 3. Third Floor Rooms.

Divide square feet of glass by 12,
Divide square feet of net outside wall by 60,
Divide cubic contents by 800,
Add together the above and multiply by 5. The result is the area of the basement pipe.

The sum of:
Glass (sq. ft.) (*Note* 4) ÷ 12
Net Wall (sq. ft.) (*Note* 5) ÷ 60
Cubic Contents ÷ 800
× 5 = Area of Basm't. Pipe (*Note* 10)

Method of Determining Size of Wall Stacks.

Section 4. First Floor Rooms.
Same as Section 1.

Section 5. Second Floor Rooms.
Deduct 30% from basement pipe area determined in Section 2.

Section 6. Third Floor Rooms.
Deduct 30% from basement pipe area determined in Section 3.

Explanatory Notes.

Note 4. *In obtaining glass surface full casement opening. An outside door is figured as glass.*

Note 5. *To obtain net outside wall multiply height by width and deduct the glass in all windows and outside doors.*

Note 6. *For rooms having unusual exposure, ordinarily north, northeast and northwest, add* 15% *to pipe area. For east and west exposure, add* 10%.

Note 7. *For cold ceilings, add one half net area of ceiling to net exposed wall (cold ceilings are those next to unfloored attics.*

Note 8. *Use no warm air pipe less than* 8 *inches in diameter*

Note 9. *It is understood in using the above values for determining basement warm air pipe areas, that these pipes should be run comparatively straight and that they should not be over* 10 *to* 12 *feet in length. Sharp turns and long pipes should have extra capacity.*

Note 10. *These formulae are for* 70° *inside temperature with zero temperature outside. For a temperature of* 10° *below zero, add* 10% *to the capacity of each pipe.*

Note 11. *The value of* 800 *(used in cubic contents) is for an estimate air change of one room volume per hour. If it is desired to provide for* 1½ *room volume use the figure* 600. *If for* 2 *room volumes use the figure* 400. *The factors* 9, 6 *and* 5 *in Sections* 1, 2 *and* 3, *are calculated for a register air temperature of* 175 *degrees.*

Transition Fittings and Stacks

Section 7. Transition from warm air pipes to stacks shall be made with a well designed elbow or boot and no stack shall be less than 70% of the warm air pipe area.

Method of Determining Size of Registers.

Section 8. All registers shall have a free area at least equal to the calculated area of the basement pipe, transition fitting or stack to which it is connected.

Method of Determining Size of Furnace.

Section 9. Add together the actual warm air pipe areas in sq. in. as obtained in Sec. 1, 2 and 3, and select a furnace having a free area not less than the sum of all the warm air pipe areas.

ARTICLE NO. 4

Installation

Location of Furnace

Section 1. The location of the furnace shall equalize the length of warm air runs as far as possible, yet give necessary perference to pipes supplying living rooms, dining rooms and main halls.

Foundation

Section 2. Furnace foundation of brick, cement, or other incombustible material must be provided. Said foundation to extend at least fifteen (15″) inches at rear and sides of furnace casing and at least thirty-six (36″) inches in front of furnace casing. Foundation to be level.

Setting or Assembling of Furnace

Section 3. (a) The base ring of the furnace shall be cemented to the foundation, making an air tight joint. The furnace parts shall be assembled plumb and level, and in a workmanlike manner.

(b) All sections and joints shall be properly fitted. Joints requiring cement shall be well filled and all bolts shall be drawn up tightly.

Casings

Section 4. (a) Warm air Furnaces shall be enclosed in metal casings or walls of brick, tile or concrete.

(b) Portable. Sheet metal casings including casing tops shall be made of galvanized sheets, not lighter than 26-U. S. Standard Gauge. They shall fit the castings and casing rings closely, so as to be dust tight, and shall be securely fastened to the front. The casing shall be lined from the upper casing ring down to a line on a level with the grate.

(c) When side collars are used the casing top must be of sufficient height so that the largest warm air pipe can be taken from side without ovaling. In no case shall a distance less than eight (8″) inches be maintained between the top of any furnace and the top of casing or bonnet.

(d) Any furnace, the casing top of which shall come within sixteen (16″) inches of a combustible floor, ceiling or joist, shall be protected by a metal shield, extending not less than eighteen (18″) inches beyond the casing of said furnace. This shield shall be suspended at least two inches below wood work, allowing free air space between shield and woodwork. No furnace casing on top, coming nearer than six (6″) inches of ceiling or joist shall be allowed in any case.

(e) Openings for side casing collars shall be cut into the casing top, so that the tops of all openings are on a level. Casing collars shall be fitted into place with a proper flange, or bead on the outside and drawn up on the inside, making a dust-tight joint. All collars shall be of same size as the warm air pipes to which they are to be connected.

(f) Brick set, cement or hollow tile casings shall be constructed as follows: Walls shall be not less than (8″) inches in thickness, and shall be constructed air tight. Rectangular casing shall be, with least inside dimensions, the same as that of the portable casing of a corresponding size of funrace. Walls shall be carried to the same height as the portable walls, allowing not less than eight (8″) inches between the top of the furnace and the bottom of the top cover. After placing the collars for the warm air pipes, continue the masonry up even with the top of the collars, lay spacing rods of bar iron on edge or angle irons across the furnace top, cover these with sheet iron, cover the sheet iron with masonry and run the side walls four (4″) inches above the masonry bed. A galvanized iron casing bonnet may be used on brick set furnaces.
Provision shall be made in the walls for a manhole to give ingress to heater.

Warm Air Pipes in Basement

Section 5 (a) All warm air pipes shall be made of bright tin not lighter than IC, or galvanized iron. Side seams shall be locked seams. All joints shall be either double seamed or lapped not less than one and one-quarter (1¼″) inches and such joints shall be beaded and soldered or riveted. All pipes shall be properly secured to ceiling or joist. No solder or riveted joint is required where round pipe slips over the casing collar. Any pipe twelve (12″) inches or greater in diameter shall not be made of material lighter than IX tin or No. 26 U. S. Standard Gauge galvanized iron.

Note 12. *It is recommended that all warm air pipes in the basement shall have an upward pitch of not less than one (1″) inch per running foot.*

(b) No warm air pipe shall run within one (1″) inch of any woodwork unless such woodwork is covered with asbestos paper and the paper covered with tin or iron.

(c) All warm air pipes in the basement shall be provided with dampers not more than two feet from the casing.

(d) Where warm air pipes pass through a masonry wall, a metal thimble shall be provided, having a diameter at least 1″ greater than the pipe, and pipe supported in such a manner that the air space is uniform on all sides.

Wall Stacks

Section 6. (a) Single Stacks. All single wall stacks or wall pipes, head, boots, ells, tees, angles and other connections shall be made of bright tin or galvanized iron and shall be covered with not less than one thickness of 12 lbs. per one hundred (100) square feet of asbestos paper. All studding and other woodwork facing said pipe shall be lined with metal and metal lath used in place of wood lath. An air space of not less than three-eights (⅜″ of an inch shall be allowed on the two sides nearest the vertical studs. All such pipes shall be braced in a proper manner so as not to obstruct the flow of air but to retain the full capacity throughout. All joints shall be locked and held in place by means of lugs, or straps. No joint shall depend wholly upon solder to make it tight.

(b) Double Stacks. All double wall stacks or wall pipes, heads, boots, ells, tees, angles and other connections shall be made of bright tin, not lighter than IC or galvanized iron and shall be made double, from and including the boot or foot piece in basement to the top of each and every stack and register head on all floors. There shall be continuous uniform air space of not less than five-sixteenths (5/16″) of an inch, which must be maintained between the outer and inner walls

of all such pipes and fittings of all kinds, styles and descriptions; such pipes, heads, boots and other fittings to be of the styles, or equal to those accepted by the National Board of Fire Underwriters.

All pipes and fittings either single or double must be secured firmly in place by lugs or straps attached to the outer walls of stacks and fittings, and no nails shall be driven through these stacks or fittings at any point. No wall pipes or fittings shall be used which depend wholly on soldered joints. The various members shall be so made that all joints are locked and soldered and the several members shall be attached to each other with slip joints, which are, for the purpose intended, air tight.

Registers

Section 7. (a) When baseboard or wall registers are used, they shall be properly and permanently attached to the stack head in such a manner that will prevent any leakage of air between the head and the register.

(b) Floor registers shall be provided either with register borders, or double register boxes of tin or galvanized iron with an air space of not less than five-sixteenths (5/16″) of an inch between inner and outer boxes.

(c) Registers for warm air and warm air pipes shall not be located in outside walls. The warm air registers in the various rooms shall be located in or near the inside walls in all cases.

Air Supply to Furnace

Section 8. (a) The air supply to furnace for warm air heating plants may be taken from outside or from within the building or may be taken partially from outside and partially from within. In no case, however, shall air be supplied to any furnace from any basement or furnace room.

(b) The cold air intake or return where air is taken from within the building shall have a net area throughout its entire length of not less than the combined net area of all warm air pipes leading from the furnace. This may be maintained in one or more ducts.

(c) When the cold air supply is taken wholly from the outside of the building the supply duct at its most contracted area must equal or exceed eighty (80%) percent of the combined area of all warm air pipes leading from the furnace.

(d) Cold air ducts shall be constructed of metal, tile or other incombustible material having smooth inner surface and shall maintain a constant net area throughout their entire length and shall be made air tight. Where a boot or shoe is connected to the casing at the base, the opening shall not extend higher than a line on the level of the grate of the furnace. The width of the shoe shall be of proper measurement to make the area at least equal to that of the round or square pipe to which it is connected.

(e) Wherever the space between joists is used to convey cold air over head, the joists and all wooden surfaces between such joists shall be lined with metal and a sheet metal pan constructed to extend not less than six (6″) inches below said joists. The connection from this pan to the boot or shoe shall be made of galvanized iron not lighter than No. 26 U. S. Standard Gauge, and shall have a transition collar, the top area of which shall be at least 10% greater than the area of the connecting pipe.

(d) The cold air face or faces shall be made of wood, or metal. When set in floors the top of same shall be flush with floor. Where cold air face is placed in a seat or side wall (whether furnished by owner, general contractor or furnace contractor) the open work of face must extend to within at least one (1″) inch of the floor line.

The free area of cold air faces shall be at least 10% in excess of the free area of the duct or ducts to which they are connected.

Note 13. The effective area of a vertical cold air face lies within twelve (12″) inches of the floor line hence, the capacity of any vertical cold air face shall be determined by multiplying the base line in inches by not to exceed twelve (12″) inches in height and deducting for the grills or cross bars

Smoke Pipes

Section 9. (a) The smoke pipe shall be as short and direct as consistent with the location of the furnace. It shall be made of either black or galvanized iron not lighter than No. 24 U. S. Standard gauge, and of the full size of the collar on the furnace throughout its entire length. It must have no other opening for attaching any fire place, stove, range, water heater, gas or ventilating connection. It shall be locked seamed or riveted; all joints shall lap not less than one and one-half (1½″) inches and it shall be rigidly secured. Cast iron smoke pipe may be used.

(b) Where the smoke pipe enters the flue, a thimble shall be cemented into the flue and the connections thereto made air tight. Should any smoke pipe come within sixteen (18″) inches of any combustible material, such combustible material must be covered with asbestos paper and a metal shield so fastened that a two inch air space exists between this shield and the combustible material.

This shield shall be no less in size than twice the diameter of the smoke pipe and of sufficient length to cover the wood at all points.
(c) No smoke pipe shall project through any external wall or window.

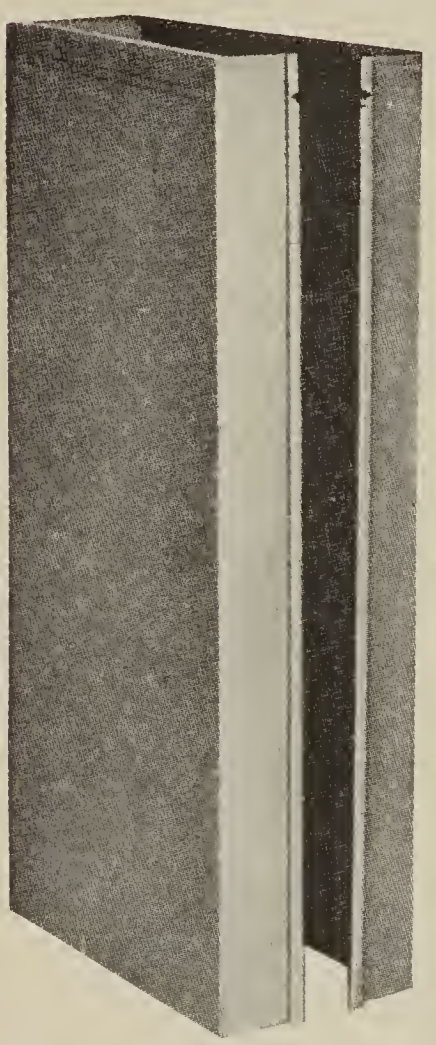
Pipeless on One Pipe Furnaces

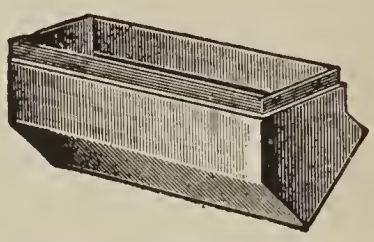
Section 10. (a) When but one duplex grating is used for both warm air and cold air in a so-called pipeless furnace, the area of the cold air intake shall be at least equal to the area of the warm air outlet of the grating. Art. 4, Sec. 4, relative to casing shall not govern when this type of furnace is installed, but the following specification shall be followed: The inner and outer casing of this type of furnace may be made of either black or galvanized iron not lighter than No. 26 U. S. Standard Gauge. A uniform air space shall be maintained at all points between the inner and outer casing. In no case shall the top of the furnace be allowed closer than twelve (12″) inches to any ceiling or joists above the furnace.
(b) Where joists are cut to accommodate this furnace, headers shall be put in and braced so as not to weaken the structure of the floor above the furnace.
(c) Article No. 3 for determining area of warm air pipe shall not govern in figuring a pipeless furnace.

(d) Where one warm air register face is used and separate face or faces for cold air supply are used, then Article No. 4, sections 5 and 8 shall apply.

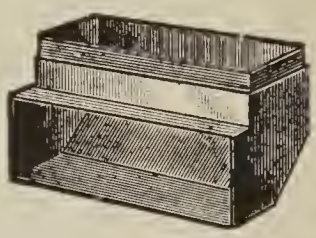
Single Wall Pipe and Fittings

Put up in bundles containing 50 feet.

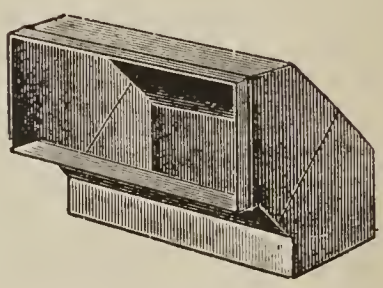




No. 012—45 Degree Angle



No. 017—90 Degree Angle

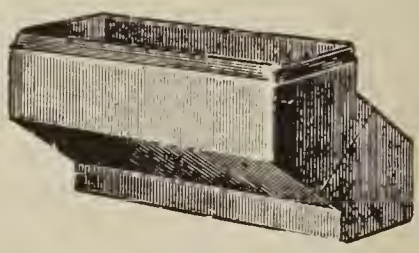


No. 017½—Elbow Two Pieced (2-45 degree angles)

Great Saving Effected

By Using Nested Pipe

Occupies 1-25th space of ordinary pipe;
Saves in weight as it requires no heavy crates;
Saves in freight as it takes 3rd class;
Saves in cartage and storage room;
Saves in labor as it goes together without tools of any kind and can be installed faster than ordinary pipe

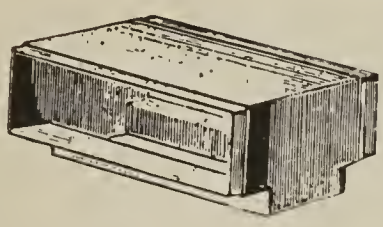


No. 019—Offset Two Pieces (2-45 degree angles)

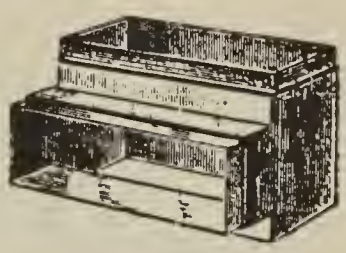
LIST PRICES

Size No.	Size	24″ Sections K. D. or Nested Per Ft.	24″ Sections Made Up	No. 012 45° Angle	No. 017 90° Angle	No. 017½ 2-45° Angles	No. 019 Offset
6 -S	3 x 10	$ .38	$ .40	$ .40	$ .70	$ .80	$ .80
7 -S	3½ x 10	.38	.40	.40	.70	.80	.80
7½-S	3 x 12	.42	.44	.44	.80	.88	.88
8 -S	3½ x 12	.42	.44	.44	.80	.88	.88
9 -S	3½ x 13	.44	.46	.54	.90	1.08	1.08
10 -S	5½ x 12	.48	.50	.64	1.00	1.28	1.28
11 -S	5½ x 14	.52	.54	.74	1.10	1.48	1.48

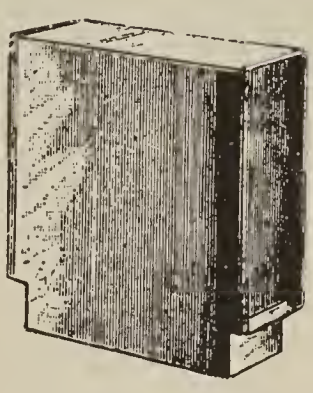
Single Wall Pipe and Fittings



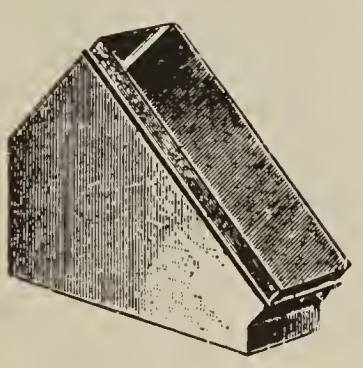
015—Tee Two Ways



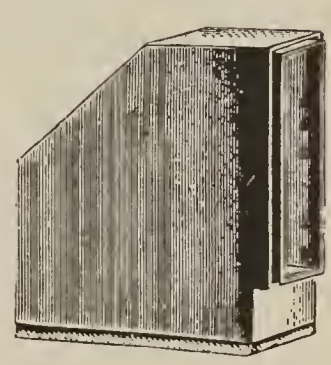
015½—Through Tee



016—Tee Two Ways



013—45° Side Angle



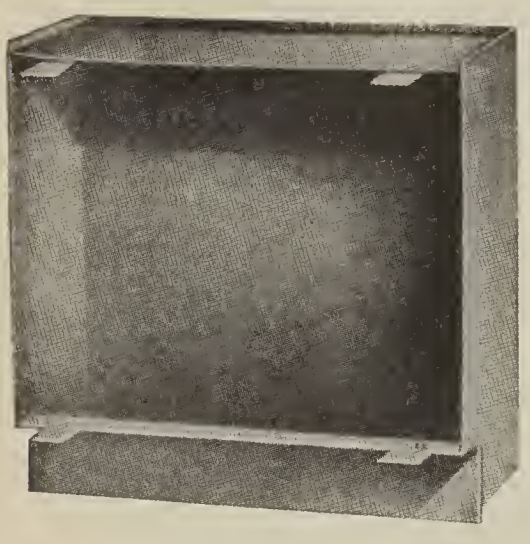
020—90° Side Elbow

LIST PRICES

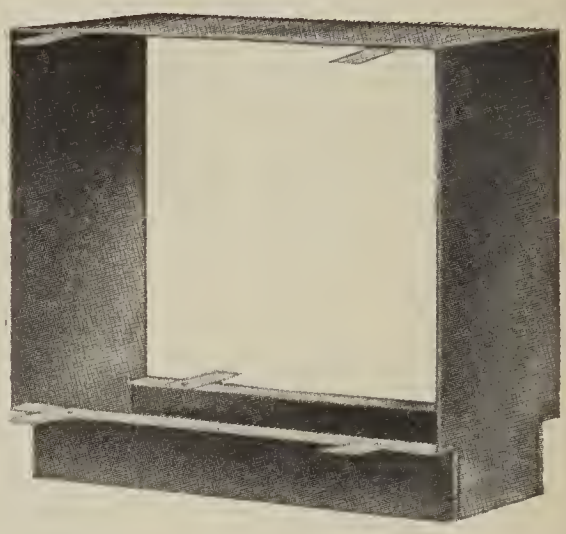
Size Number	Size	No. 015 Two Way Tee	No. 015½ Thru Tee	No. 016 Broadway Tee	No. 013 45° Side Angle	No. 020 90° Side Elbow
6 -S	3 x 10	$ .70	$ .70	$1.10	$ .50	$1.00
7 -S	3½ x 10	.70	.70	1.10	.50	1.00
7½-S	3 x 12	.80	.80	1.30	.54	1.08
8 -S	3½ x 12	.80	.80	1.30	.54	1.08
9 -S	3½ x 13	.90	.90	1.40	.64	1.28
10 -S	5½ x 12	1.00	1.00	1.60	.80	1.60
11 -S	5½ x 14	1.10	1.10	1.80	.90	1.80

Single Wall Pipe and Fittings

Horizontal Stack-Heads

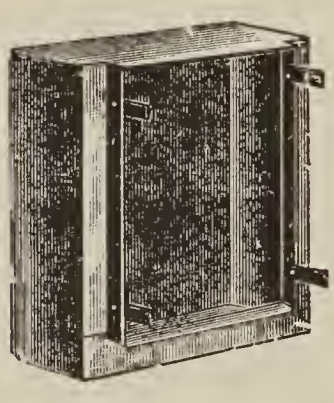


No. 056—For One Register

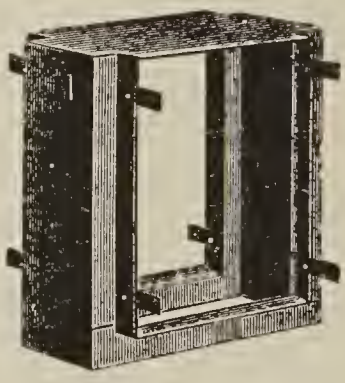


No. 057—For Two Registers

Vertical Stack-Heads



No. 049—For One Register



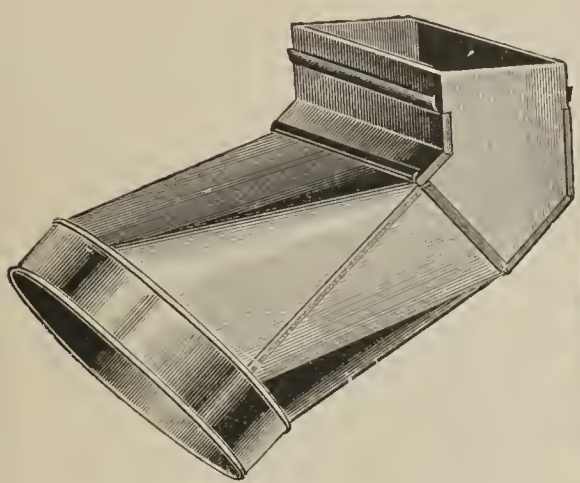
No. 051—For Two Registers

Horizontal and Vertical Stack-Head List Prices

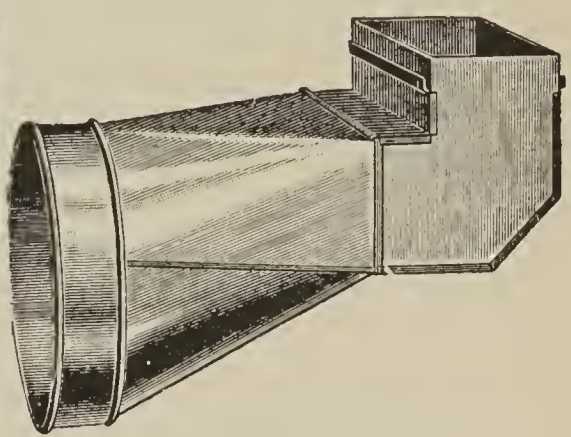
Size No.	Size	Size Register	No. 056	No. 057	No. 049	No. 051
6 –S	3 x 10	8 x 10	$ .70	$ .80	$ .70	$ .80
7 –S	3½ x 10	8 x 10 8 x 12	.70	.80	.70	.80
7½–S	3 x 12	8 x 12	.80	.90	.80	.90
8 –S	3½ x 12	8 x 12 9 x 12	.80	.90	.80	.90
9 –S	3½ x 13	10 x 12	.90	1.00	.90	1.00
10 –S	5½ x 12	10 x 12	1.00	1.10	1.00	1.10
11 –S	5½ x 14	10 x 12	1.10	1.20	1.10	1.20

Frictionless Boots

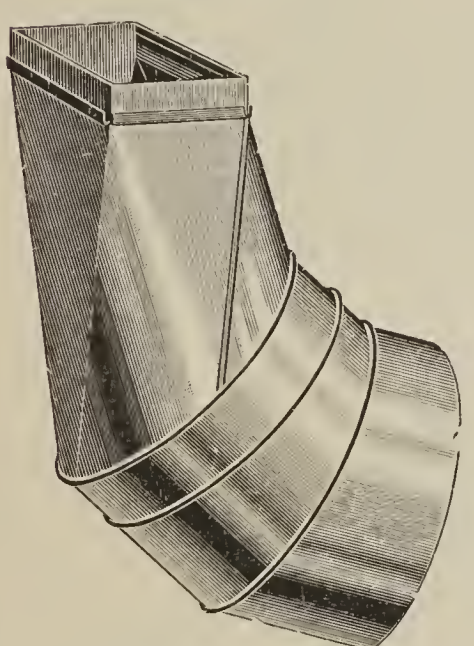
In Combination with Angles and Ells



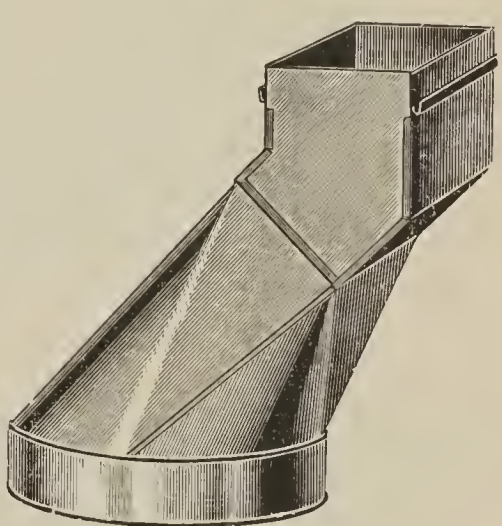
No. 01 Boot in connection with
012-45 Degree Stack Angle



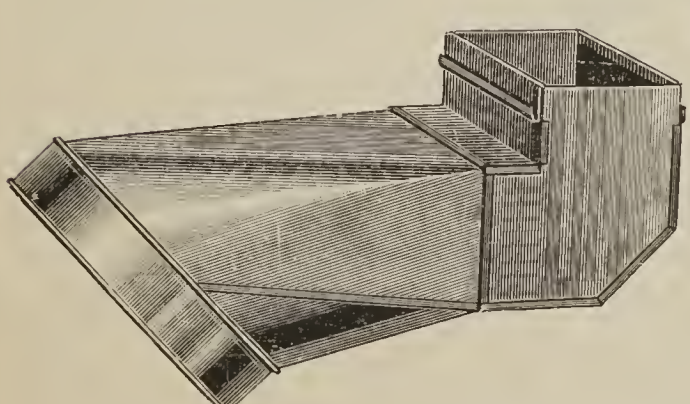
No. 01 Boot in connection with
017-90 Degree Stack Angle



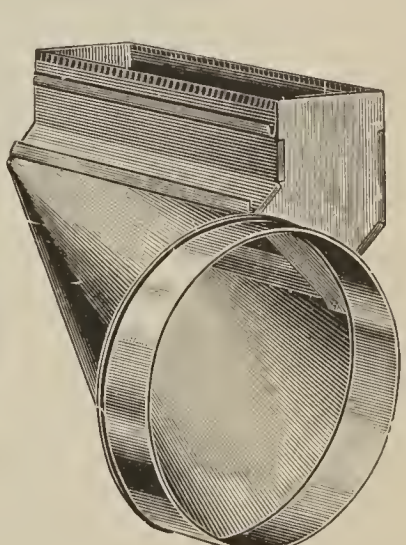
No. 03 Boot in connection with $22\frac{1}{2}$
Degree Round Angle, giving $22\frac{1}{2}$
Degree pitch to pipe



No. 03 Boot in connection with
012-45 Degree Stack Angle



No. 03 Boot in connection with "M"
90 Degree Stack Angle



No. 04 Boot in connection with
012 Degree Stack Angle

For List Prices See Page

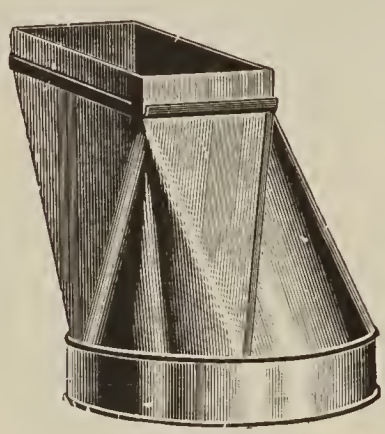
Single Wall Pipe and Fittings

Frictionless Boots and Offsets

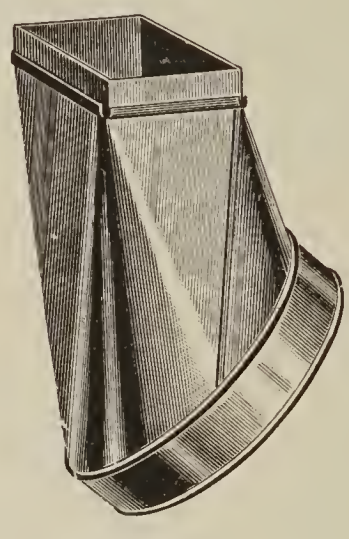
We illustrate herewith a line of Single Boots which are recom mended as offering the least resistance to the flow of warm air.

These Boots are made in all regular sizes of Single Wall Pipe, and all pipe made for the various makes of Baseboard Registers.

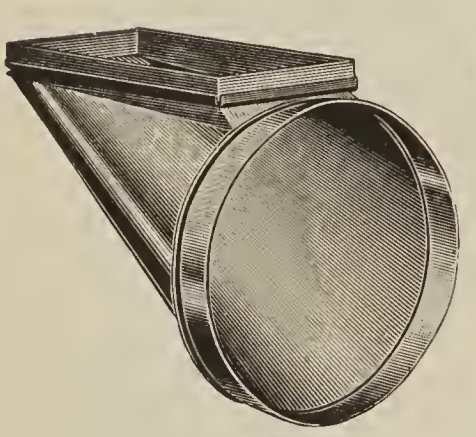
Used in connection with Stack Angles and Round Angles, many combinations may be made.



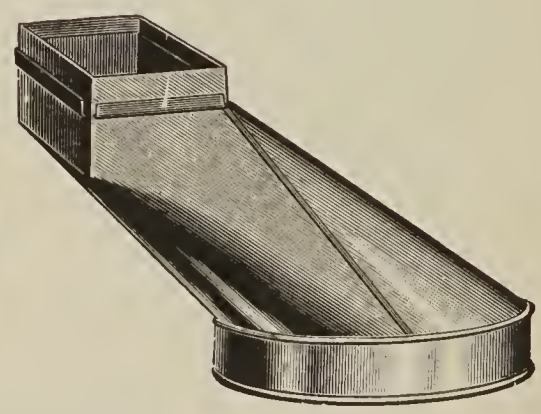
No. 01 Boot



No. 03 Boot



No. 04 Boot



No. 02 Offset Boot, Offsets 4 in.

In ordering, specify size of collar

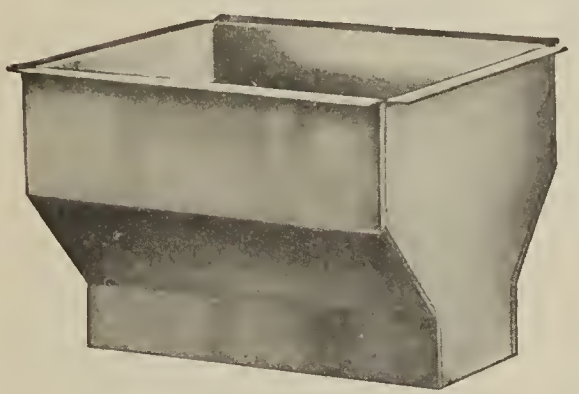
LIST PRICES

Size No.	Size	Collar Size	No. 01, 02, 03, & 04
6 –S	3 x 10	8″	$ .70
7 –S	3½ x 10	8″	.70
7½–S	3 x 12	9″	.80
8 –S	3½ x 12	9″	.80
9 –S	3½ x 13	10″	.90
10 –S	5½ x 12	12″	1.00
11 –S	5½ x 14	12″	1.10

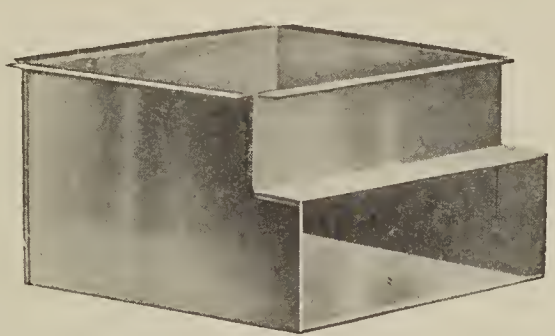
Single Wall Pipe and Fittings

Floor Register Boxes

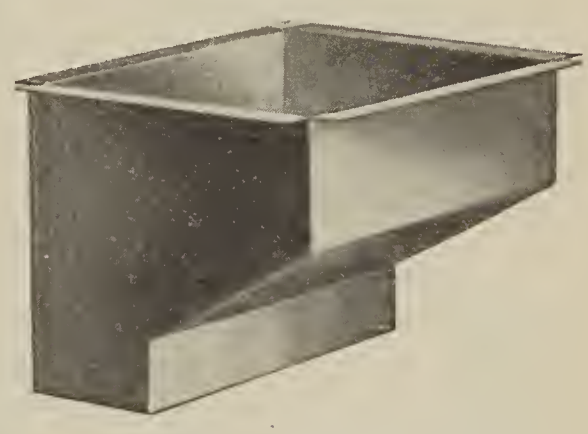
For Second Floor



No. 050 Floor Register Box



No. 052 Floor Register Box



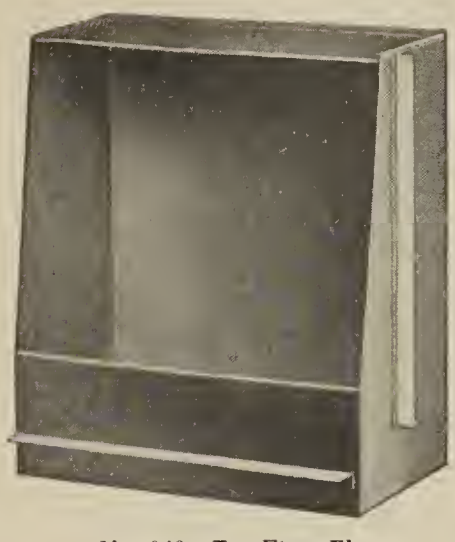
No. 058 Floor Register Box

In ordering Floor Register Boxes, specify size of Register.

LIST PRICES

Size No.	Size	Size Register	No. 050	No. 052	No. 058
6 –S	3 x 10	8 x 10	$ .70	$ .70	$ .70
7 –S	3½ x 10	8 x 10	.70	.70	.70
7½–S	3 x 12	8 x 12	.80	.80	.80
8 –S	3½ x 12	8 x 12	.80	.80	.80
9 –S	3½ x 13	10 x 12	.90	.90	.90
10 –S	5½ x 12	10 x 12	1.00	1.00	1.00
11 –S	5½ x 14	10 x 12	1.10	1.10	1.10

Single Stack-Heads for Base Board Registers



No. 040—For First Floor
For 1 Register

LIST PRICE—Each

No. 040 for First Floor

Size Register	Price	Size Register Extra Deep	Price
8 x 10	$.70	.....	.....
8 x 12	.80	.....	.....
9 x 12	.80	.....	.....
10 x 12	.85	.....	.....
10 x 13	.90	10 x 13	$1.00
11 x 13	.90	11 x 13	1.00
12 x 13	.95	12 x 13	1.20
12 x 14	.95	12 x 14	1.20

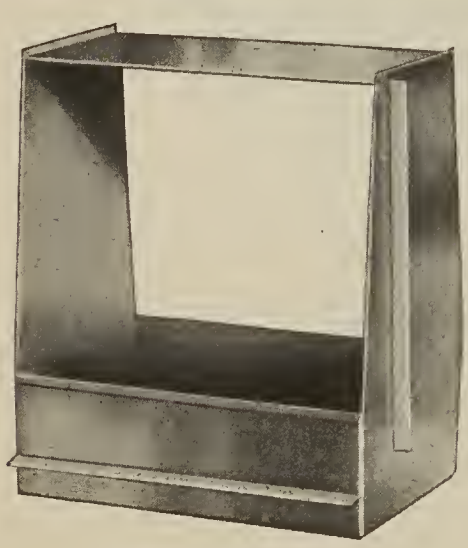
LIST PRICE—Each

No. 040 E First Floor with Extension Collar.

Size Register	Price	Size Register Extra Deep	Price
8 x 10	$ .70	.....	.....
8 x 12	.80	.....	.....
9 x 12	.80	.....	.....
10 x 12	.85	.....	.....
10 x 13	.90	10 x 13	$1.00
11 x 13	.90	11 x 13	1.00
12 x 13	.95	12 x 13	1.20
12 x 14	.95	12 x 14	1.20

In ordering No. 040 E State Size Extension Collar.

No. 040 E—For First Floor for 1 Register
with collar for Extension to Second Floor



N. 042—For 2 Registers
For First Floor

LIST PRICE—Each

No. 042–Two Registers–First Floor

Size Register	Price	Size Register Extra Deep	Price
8 x 10	$ .90	.....	.....
8 x 12	1.00	.....	.....
9 x 12	1.00	.....	.....
10 x 12	1.05	.....	.....
10 x 13	1.10	10 x 13	$1.40
11 x 13	1.10	11 x 13	1.40
12 x 13	1.15	12 x 13	1.60
12 x 14	1.15	12 x 14	1.60

In ordering Base Board Register Boxes specify make, size, style or number of register to be used.

Single Stack-Heads for Base Board Registers

No. 042 E—For 2 Registers for first floor with extension collar

LIST PRICE—Each

No 042 E—Two Registers for First Floor with Extension Colar.

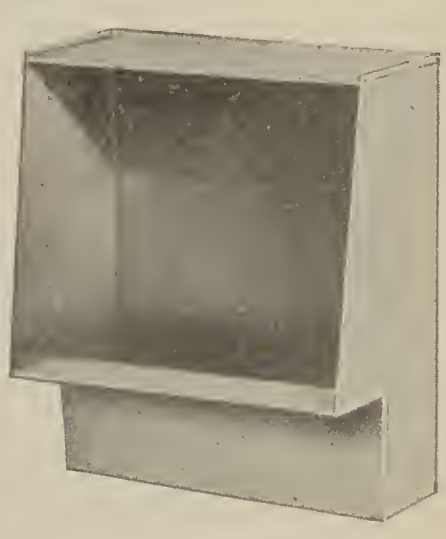
Size Register	Price	Size Register Ex. Deep	Price
8 x 10	$ .90	.....	.....
8 x 12	1.00	.....	.....
9 x 12	1.00	.....	.....
10 x 12	1.05	.....	.....
10 x 13	1.10	10 x 13	$1.40
11 x 13	1.10	11 x 13	1.40
12 x 13	1.15	12 x 13	1.60
12 x 14	1.15	12 x 14	1.60

In Ordering No. 042 E State Size of Extension Collar.

LIST PRICE—Each

No. 043 For One Register for Second Floor.

Size Register	Price
8 x 10	$ .70
8 x 12	.80
9 x 12	.80
10 x 12	.85
10 x 13	.90
11 x 13	.90
12 x 13	.95
12 x 14	.95



No. 043—For One Register for Second Floor

No. 046—For 2nd Floor for 2 Registers. Made to fit regular sizes Single Wall Pipe of same width as listed width of Register

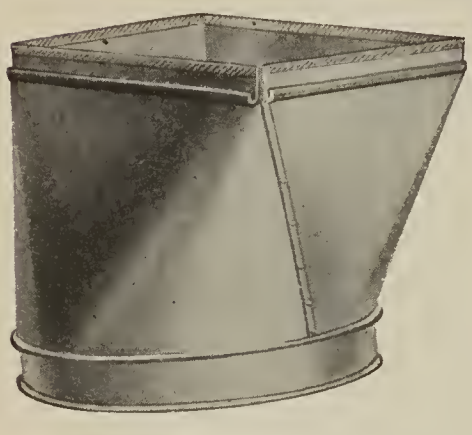
LIST PRICE—Each

No. 046 Two Registers for Second Floor.

Size Register	Price
8 x 10	$ .70
8 x 12	.80
9 x 12	.80
10 x 12	.85
10 x 13	.90
11 x 13	.90
12 x 13	.95
12 x 14	.95

In ordering Base Board Register Boxes, specify make, size, style number of register to be used.

Frictionless Boots and Angles for Base Board Register Boxes

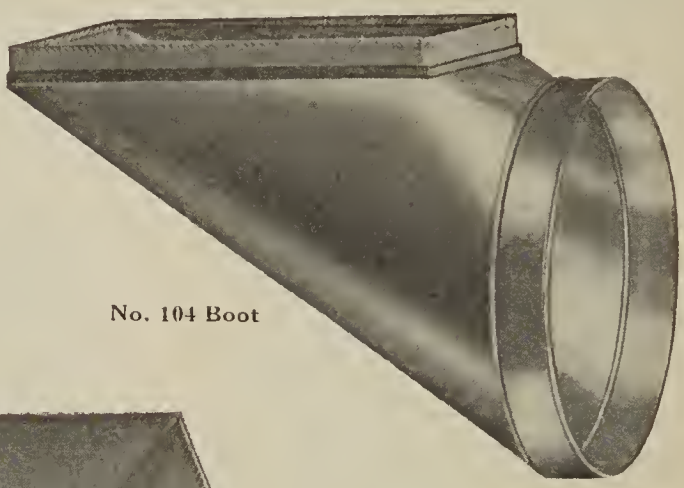


No. 101 Boot

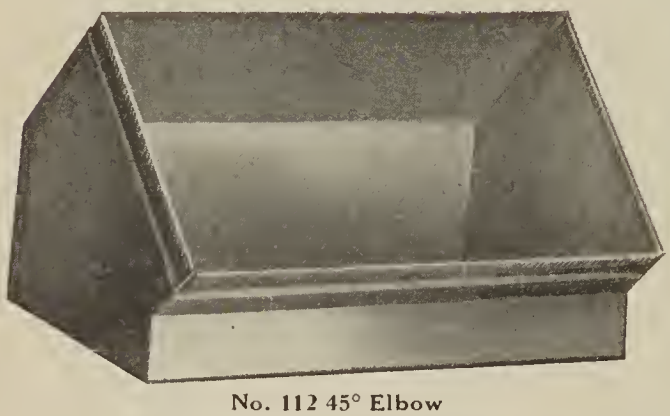
No. 102 4" Offset

In ordering Frictionless Boots and Angles for Baseboard Register Boxes, either with single or double collars, specify make, size, style or number of register to be used.

Single Boots with Double Pipe Connections add 50% to Single List. For Boots with 14" Collars add 50c.



No. 104 Boot



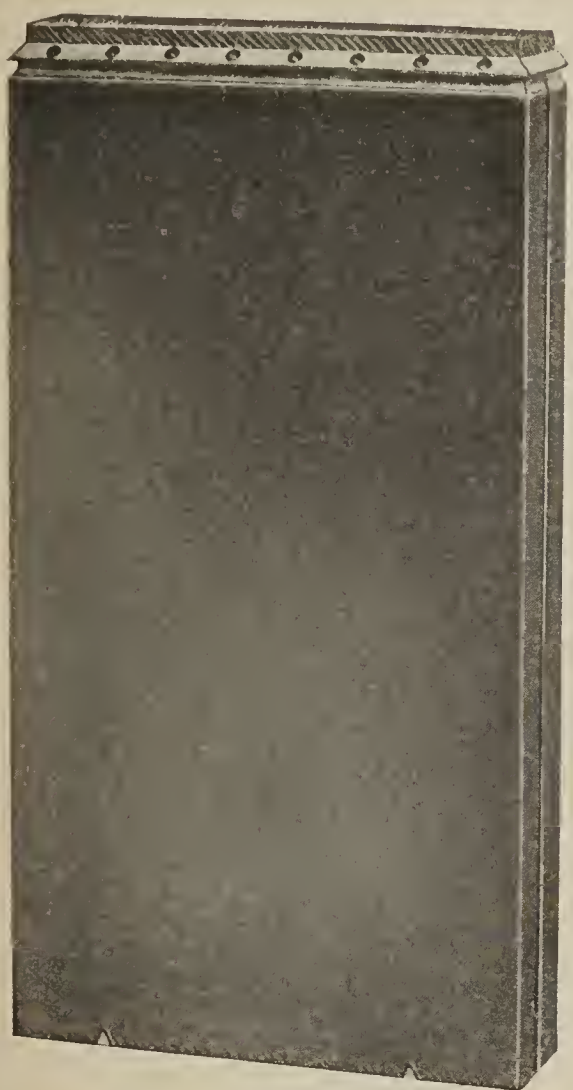
No. 112 45° Elbow

We also make these boots with double pipe collars. In ordering kindly specify size of double pipe and prefix the letters "DC" before the boot desired.

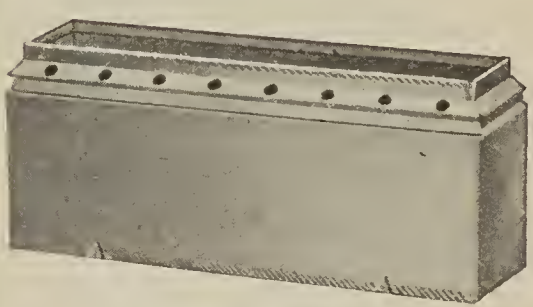
LIST PRICES

One Register				Two Registers		
Size Register	Size Collar	No. 101-102 & 104	No. 112 Angle	Size Collar	No. 101-102 & 104	No. 112 Angle
8 x 10	8	$ .80	$ .45	10	$1.00	$ .60
8 x 12	8	.90	.50	10	1.10	.65
9 x 12	9	.90	.50	10	1.10	.65
10 x 12	10	.95	.55	10	1.15	.70
10 x 13	10	1.00	.60	12	1.20	.75
11 x 13	12	1.00	.60	12	1.20	.75
12 x 13	12	1.05	.65	12	1.25	.80
12 x 14	12	1.05	.65	12	1.25	.80
EXTRA DEEP						
10 x 13	12	1.10	.70	12	1.50	.90
11 x 13	12	1.10	.70	12	1.50	.90
12 x 13	12	1.30	.80	12	1.70	1.00
12 x 14	12	1.30	.80	12	1.70	1.00

Double Wall Pipe and Fittings



24 in. Joint
Patented Sept. 19, 1922



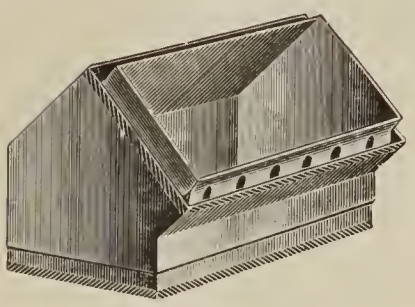
4 in. Joint

Double, Non-Vented, Safety Furnace-Wall-Pipe
LIST PRICE—Each

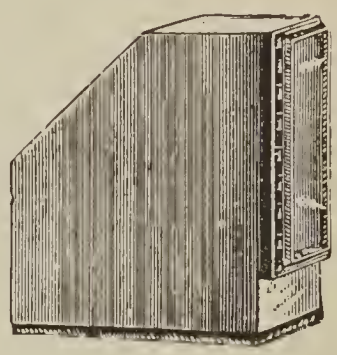
Size No.	Outside Dimensions	Inside Dimensions	2″ Length	4″ Length	6″ Length	9″ Length	12″ Length	18″ Length	24″ Length	56 Foot Crates (per crate)
6 D	3 x10⅝	2⅜x10	$0.45	$0.55	$0.65	$ .80	$0.95	$1.35	$1.80	$53.50
7 D	3⅝x10⅝	3 x10	.45	.55	.65	.80	.95	1.35	1.80	53.50
7½D	3 x12⅝	2⅜x12	.55	.65	.75	.90	1.10	1.50	2.00	60.00
8 D	3⅝x12⅝	3 x12	.55	.65	.75	.90	1.10	1.50	2.00	60.00
9 D	3⅝x13⅝	3 x13	.65	.75	.85	1.10	1.30	1.80	2.40	.....
10 D	5⅝x12⅝	5 x12	.75	.85	.95	1.25	1.50	2.10	2.80	.....
11 D	5⅝x13⅝	5 x13	.80	.90	1.05	1.35	1.65	2.35	3.15	.....

Double Wall Pipe and Fittings

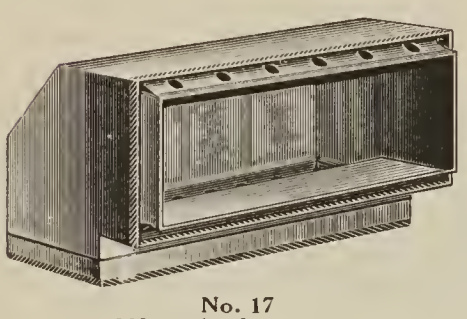
Elbows and Angles



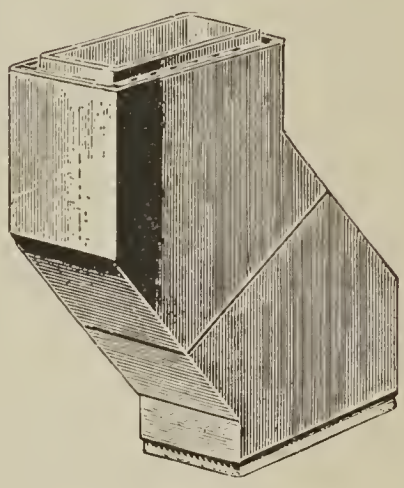
No. 12
45° angle short way



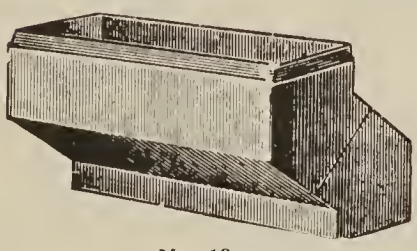
No. 20
90° elbow long way



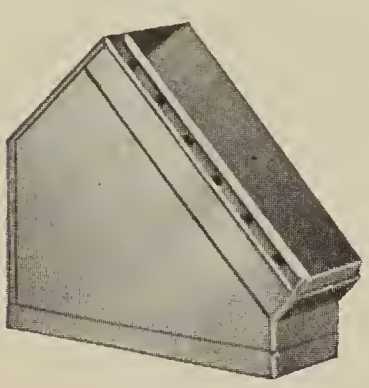
No. 17
90° angle short way



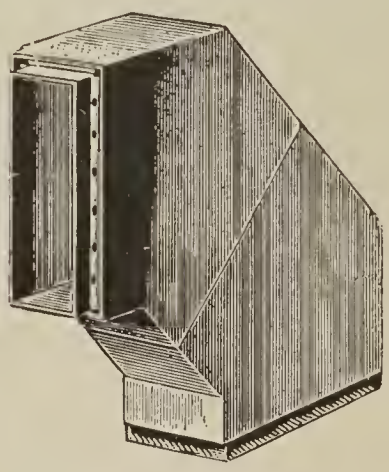
No. 21
Offset 2-45° angles long way



No. 19
Offset formed by two 45° angles short way



No. 13
45° angle long way



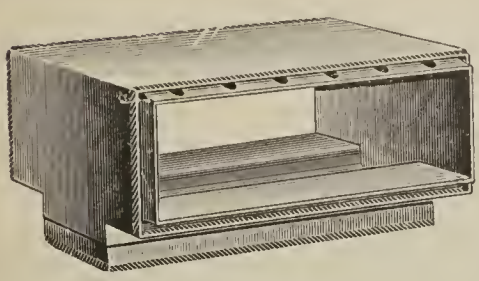
No. 13D
2-45° angles long way

LIST PRICES

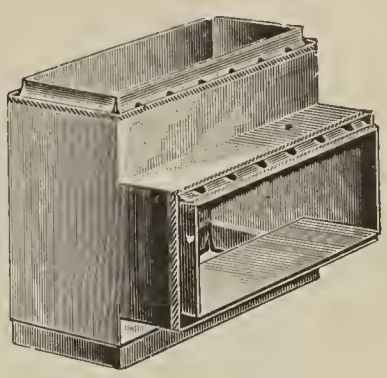
Size No.	Outside Dimensions	Inside Dimensions	No. 12 45° Angle	No. 13 45° Long Way Angle	No. 13D	No. 17 90° Angle	No. 19 Offsett	No. 20 Long Way 90° Elbow	No. 21
6 D	3 x 10⅝	2⅜ x 10	$ .80	$1.00	$2.00	$1.40	$1.60	$1.85	$2.00
7 D	3⅝ x 10⅝	3 x 10	.80	1.00	2.00	1.40	1.60	1.85	2.00
7½D	3 x 12⅝	2⅜ x 12	.90	1.10	2.20	1.50	1.80	2.00	2.20
8 D	3⅝ x 12⅝	3 x 12	.90	1.10	2.20	1.50	1.80	2.00	2.20
9 D	3⅝ x 13⅝	3 x 13	1.10	1.25	2.50	1.80	2.20	2.20	2.50
10 D	5⅝ x 12⅝	5 x 12	1.60	1.75	3.50	2.80	3.20	3.10	3.50
11 D	5⅝ x 13⅝	5 x 13	2.00	2.25	4.50	3.10	4.00	3.40	4.50

Double Pipe and Fittings

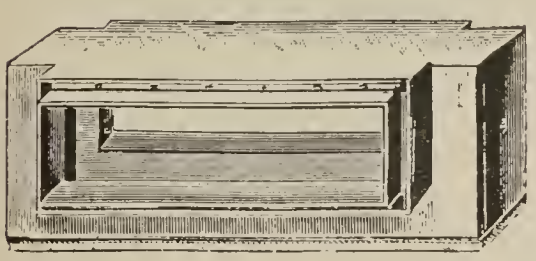
Tees



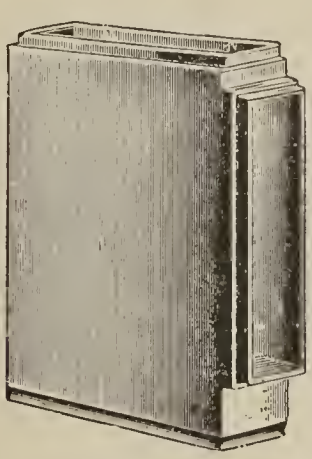
No. 15—Cross Tee



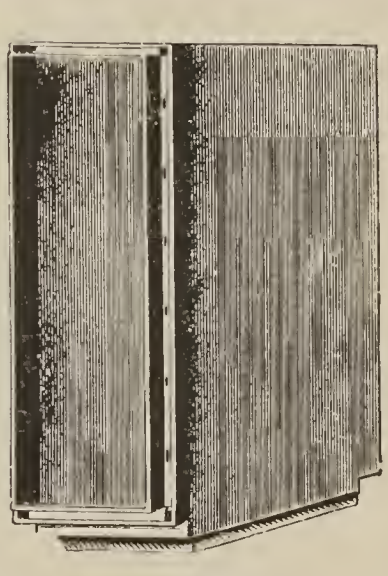
No. 15½—Through Tee



No. 10
Reducing Cross Tee



No. 11
Thru' Tee—Long way



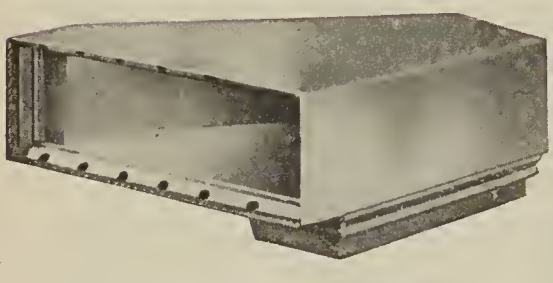
No. 16
Cross Tee—Long Way

LIST PRICES

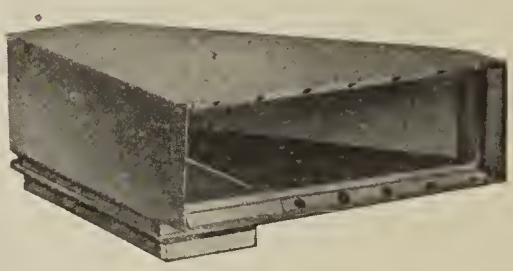
Size No.	Outside Dimensions	Inside Dimensions	No. 10 Reducing Tee	No. 11 Tee	No. 15 Cross Tee	No. 15½ Tee	No. 16 Cross Tee
6 D	3 x 10⅝	2⅜ x 10	$1.50	$2.10	$1.50	$1.50	$2.10
7 D	3⅝ x 10⅝	3 x 10	1.50	2.10	1.50	1.50	2.10
7½D	3 x 12⅝	2⅜ x 12	1.60	2.35	1.60	1.60	2.35
8 D	3⅝ x 12⅝	3 x 12	1.60	2.35	1.60	1.60	2.35
9 D	3⅝ x 13⅝	3 x 13	1.90	2.70	1.90	1.90	2.70
10 D	5⅝ x 12⅝	5 x 12	2.90	3.50	2.90	2.90	3.50
11 D	5⅝ x 13⅝	5 x 13	3.20	3.90	3.20	3.20	3.90

Double Pipe and Fittings

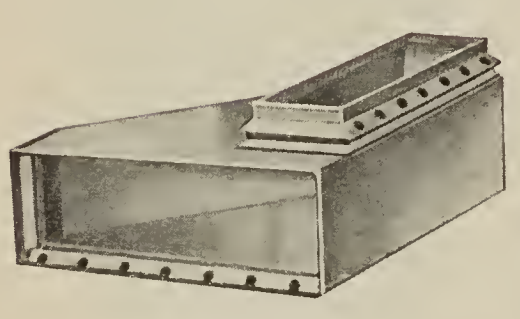
Reverse Elbows



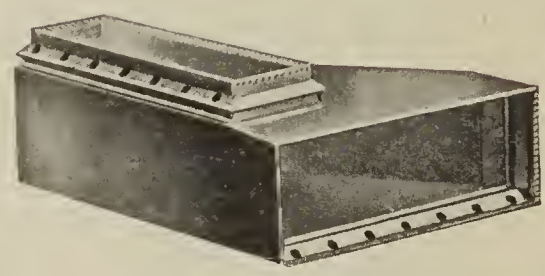
No. 23
Reverse elbow



No. 22
Reverse elbow



No. 25
Reverse elbow



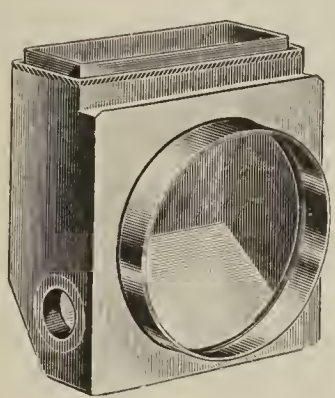
No. 24
Reverse elbow

LIST PRICES

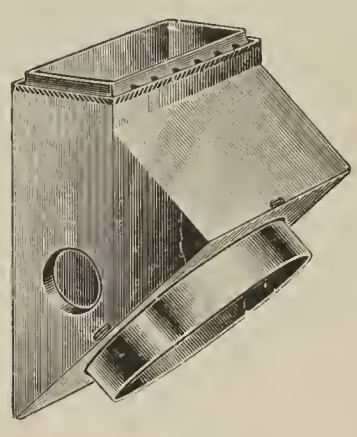
Size No.	Outside Dimensions	Inside Dimensions	No. 22	No. 23	No. 24	No. 25
6 D	3 x 10⅝	2⅜ x 10	$3.00	$3.00	$3.00	$3.00
7 D	3⅝ x 10⅝	3 x 10	3.00	3.00	3.00	3.00
7½D	3 x 12⅝	2⅜ x 12	3.25	3.25	3.25	3.25
8 D	3⅝ x 12⅝	3 x 12	3.25	3.25	3.25	3.25
9 D	3⅝ x 13⅝	3 x 13	4.00	4.00	4.00	4.00
10 D	5⅝ x 12⅝	5 x 12	4.50	4.50	4.50	4.50
11 D	5⅝ x 13⅝	5 x 13	5.00	5.00	5.00	5.00

Double Pipe and Fittings

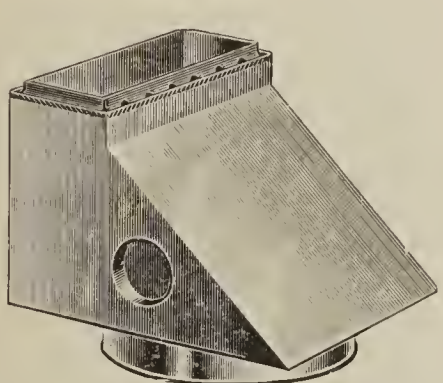
Cellar Boots



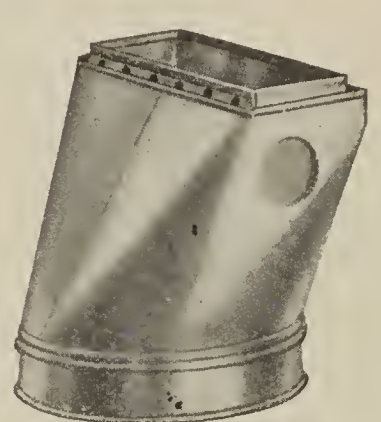
No. 6



No. 7



No. 5



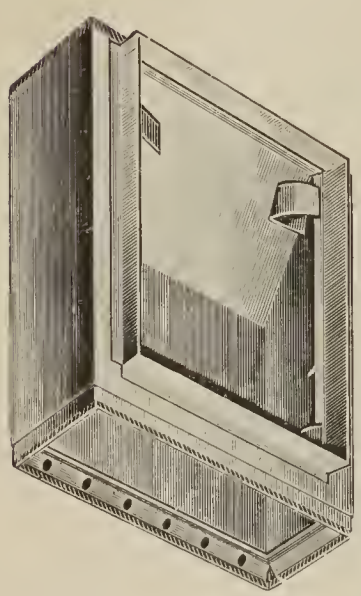
No. 1

LIST PRICES

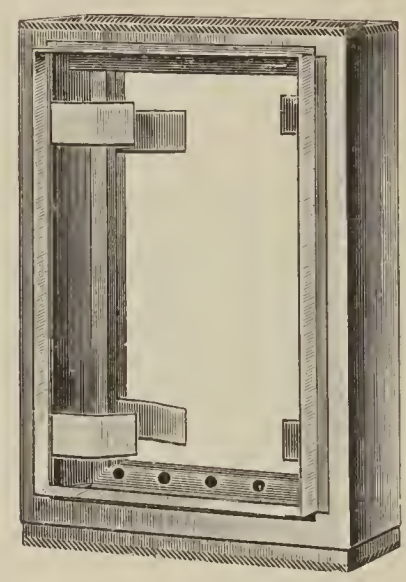
Size No.	Outside Dinemsions	Inside Dimensions	Collar Size	No. 1, 5, 6, and 7 Boots
6 D	3 x 10⅝	2⅜ x 10	8″	$2.10
7 D	3⅝ x 10⅝	3 x 10	8″	2.10
7½D	3 x 12⅝	2⅜ x 12	9″	2.35
8 D	3⅝ x 12⅝	3 x 12	9″	2.35
9 D	3⅝ x 13⅝	3 x 13	10″	2.70
10 D	5⅝ x 12⅝	5 x 12	12″	3.50
11 D	5⅝ x 13⅝	5 x 13	12″	3.90

Double Pipe and Fittings

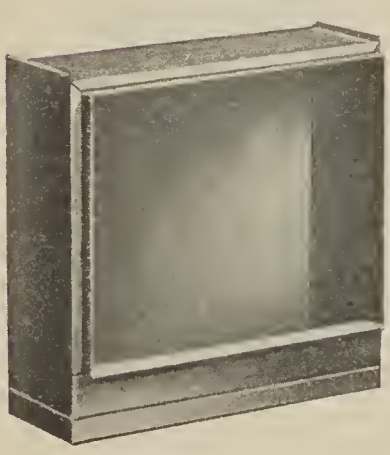
Double Vertical and Horizontal Side Wall Register Boxes



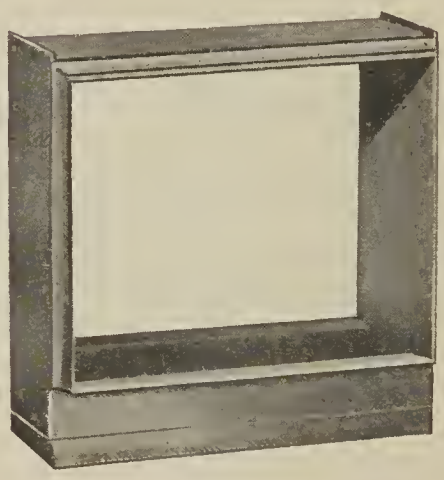
No. 49
For One Vertical Register



No. 51
For Two Vertical Registers



No. 56
Horizontal For One Register



No. 57
Horizontal For Two Registers

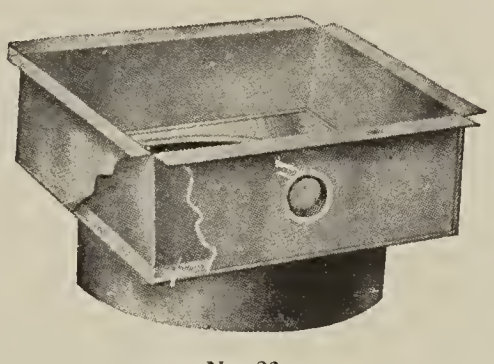
LIST PRICES

Size No.	Outside Dimensions	Inside Dimensions	Register Size	No. 49, 51, 56 and 57
6 D	3 x 10⅝	2⅜ x 10	8 x 10	$1.85
7 D	3⅝ x 10⅝	3 x 10	8 x 10	1.85
7½D	3 x 12⅝	2⅜ x 12	8 x 12	2.00
8 D	3⅝ x 12⅝	3 x 12	8 x 12	2.00
9 D	3⅝ x 13⅝	3 x 13	10 x 12	2.20
10 D	5⅝ x 12⅝	5 x 12	10 x 12	3.10
11 D	5⅝ x 13⅝	5 x 13	10 x 12	3.40

In ordering specify size of register opening.

Double Pipe and Fittings

First Floor Double Register Boxes



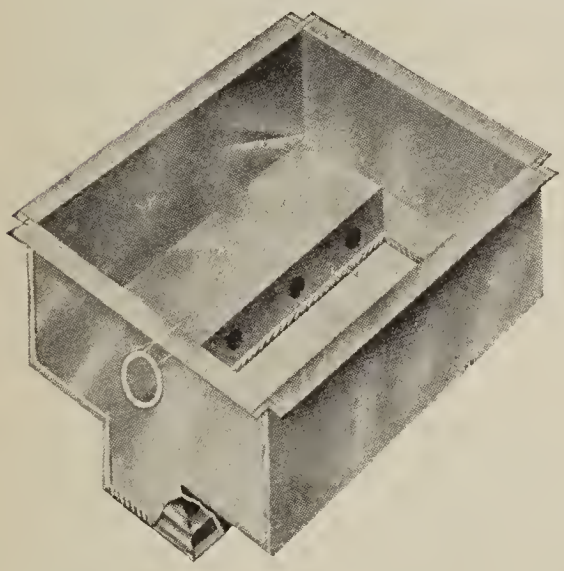
No. 23
Double Register Box

LIST PRICES

Size of Register	Cut No. 23	Size of Collar
8 x 10	$ .90	8″
8 x 12	1.00	8″
9 x 12	1.00	9″
10 x 12	1.08	10″
10 x 14	1.20	10″
12 x 14	1.44	12″
12 x 15	1.44	12″

In ordering specify size of register opening.

Second Floor Register Boxes



No. 50

No. 52

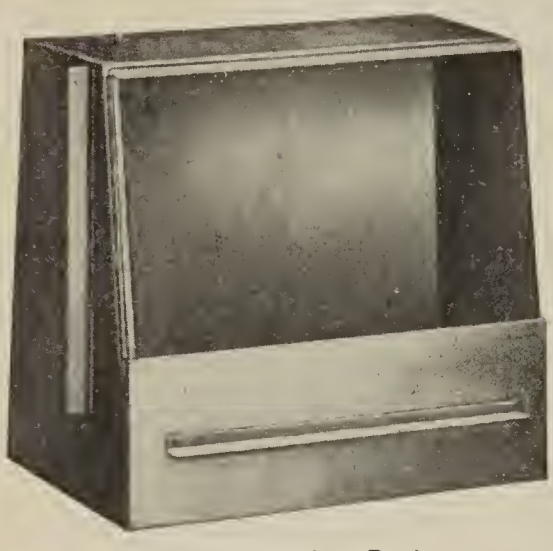
LIST PRICES

Size No.	Outside Dimensions	Inside Dimensions	Size of Register	No. 50 & 52
6 D	3 x 10⅝	2⅜ x 10	8 x 10	$1.85
7 D	3⅝ x 10⅝	3 x 10	8 x 10	1.85
7½D	3 x 12⅝	2⅜ x 12	8 x 12	2.00
8 D	3⅝ x 12⅝	3 x 12	8 x 12	2.00
9 D	3⅝ x 13⅝	3 x 13	10 x 12	2.20
10 D	5⅝ x 12⅝	5 x 12	10 x 12	3.10
11 D	5⅝ x 13⅝	5 x 13	10 x 12	3.40

In ordering specify size of register opening.

Double Pipe and Fittings

Stack-Heads



No. 40—For One First Floor Register

LIST PRICE—Each

No. 40—For One First Floor Register

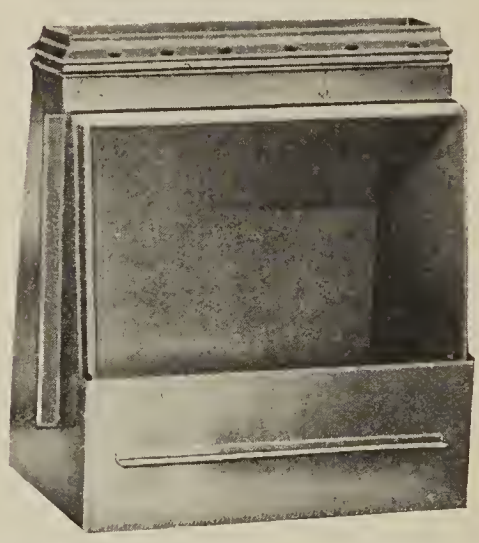
Size Register	Price	Size Register Extra Deep	Price
8 x 10	$2.10	.....	.....
8 x 12	2.20	.....	.....
9 x 12	2.20	.....	.....
10 x 12	2.40	.....	.....
10 x 13	2.50	10 x 13	$2.80
11 x 13	2.50	11 x 13	2.80
12 x 13	2.60	12 x 13	3.00
12 x 14	2.60	12 x 14	3.00

LIST PRICE—Each

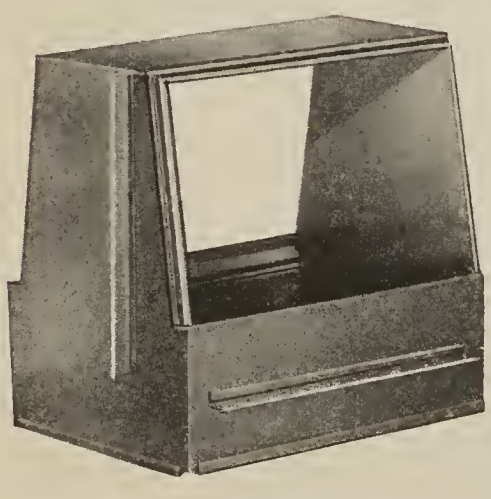
No. 40 E For One Register and Extension to Second Floor

Size Register	Price	Size Register Extra Deep	Price
8 x 10	$2.10	.....	.....
8 x 12	2.20	.....	.....
9 x 12	2.20	.....	.....
10 x 12	2.40	.....	.....
10 x 13	2.50	10 x 13	$2.80
11 x 13	2.50	11 x 13	2.80
12 x 13	2.60	12 x 13	3.00
12 x 14	2.60	12 x 14	3.00

In ordering No. 40 E State Size of Extension Collar.



No. 40 E—For One Register and Extension to Second Floor



No. 42 For Two First Floor Registers

LIST PRICE—Each

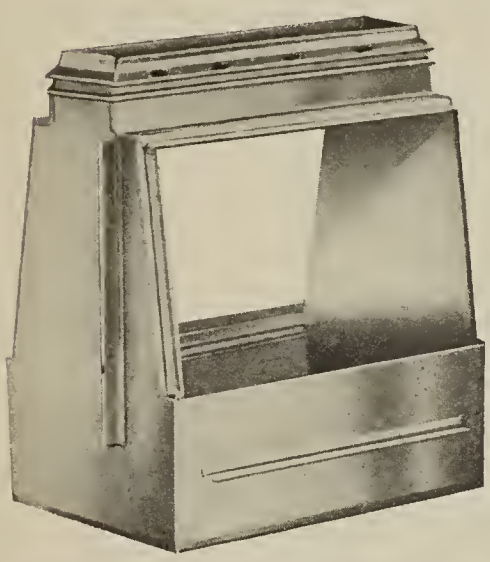
No. 42 Two Registers—First Floor

Size Register	Price	Size Register Extra Deep	Price
8 x 10	$2.50	.....	.....
8 x 12	2.70	.....	.....
9 x 12	2.70	.....	.....
10 x 12	2.90	.....	.....
10 x 13	3.10	10 x 13	$3.50
11 x 13	3.10	11 x 13	3.50
12 x 13	3.30	12 x 13	3.70
12 x 14	3.30	12 x 14	3.70

In ordering Base Board Register Boxes, Specify make, size, style number of register to be used.

Double Pipe and Fittings

Stack-Heads



No. 42 E—For Two Registers and Extension

LIST PRICE—Each

No. 42 E Two Registers First Floor with Extension Collar

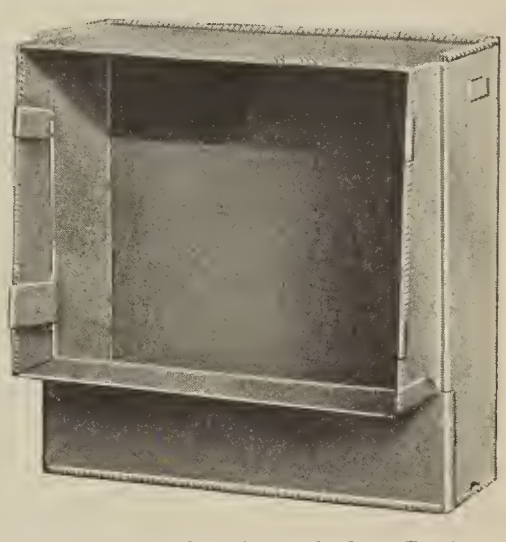
Size Register	Price	Size Register Extra Deep	Price
8 x 10	$2.50	.....	.....
8 x 12	2.70	.....	.....
9 x 12	2.70	.....	.....
10 x 12	2.90	.....	.....
10 x 13	3.10	10 x 13	$3.50
11 x 13	3.10	11 x 13	3.50
12 x 13	3.30	12 x 13	3.70
12 x 14	3.30	12 x 14	3.70

In ordering No. 42 E state size of extension Collar.

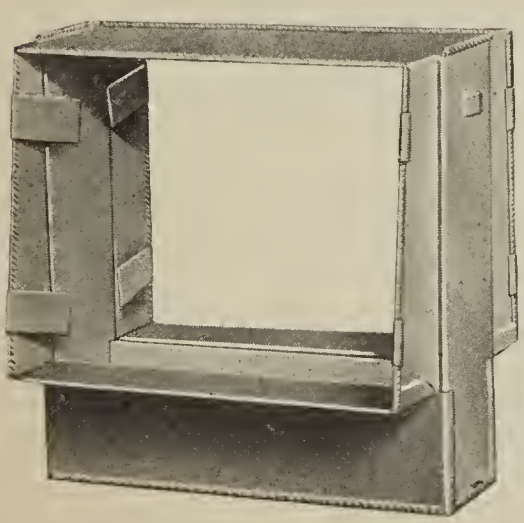
LIST PRICE—Each

No. 43, for One Second Floor Register

Size Register	Price
8 x 10	$2.10
8 x 12	2.20
9 x 12	2.20
10 x 12	2.40
10 x 13	2.50
11 x 13	2.50
12 x 13	2.60
12 x 14	2.60



No. 43—For One Second Floor Register



No. 46—For Two Second Floor Registers

LIST PRICE—Each

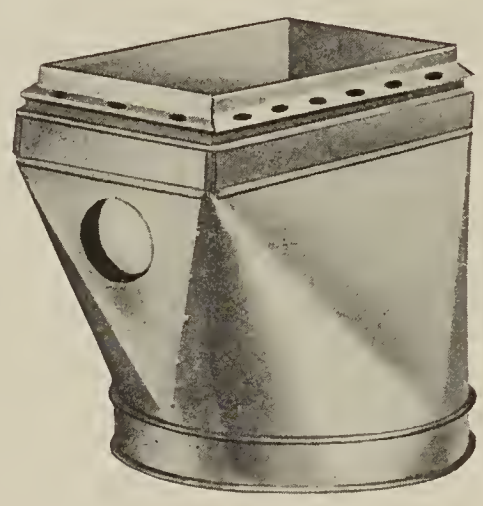
No. 46–Two Second Floor Registers

Size Register	Price
8 x 10	$2.10
8 x 12	2.20
9 x 12	2.20
10 x 12	2.40
10 x 13	2.50
11 x 13	2.50
12 x 13	2.60
12 x 14	2.60

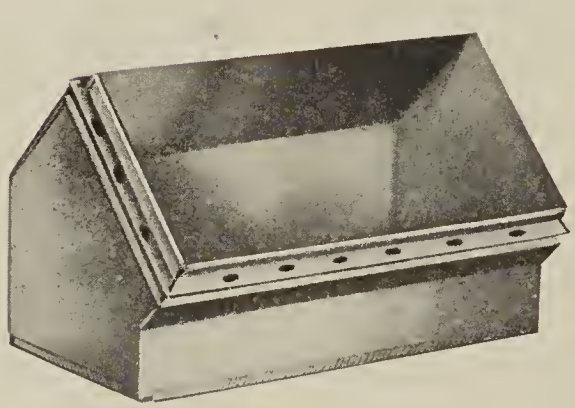
In ordering Base Board Register Boxes, specify make, size, style number of register to be used.

Double Fittings for Stack-Heads

For Base Board Registers



No. 201 Boot



No. 212 45 Degree Angle

LIST PRICE—Each

One Register				Two Registers		
Size Register	Size Collar	No. 201	No. 212	Size Collar	No. 201	No. 212
8 x 10	8	$2.30	$1.00	10	$2.80	$1.20
8 x 12	8	2.40	1.10	10	3.00	1.30
9 x 12	9	2.40	1.10	10	3.00	1.30
10 x 12	10	2.60	1.20	10	3.20	1.40
10 x 13	10	2.70	1.25	12	3.40	1.50
11 x 13	12	2.70	1.25	12	3.40	1.50
12 x 13	12	2.80	1.30	12	3.60	1.60
12 x 14	12	2.80	1.30	12	3.60	1.60
EXTRA DEEP						
10 x 13	12	3.00	1.35	12	4.00	1.80
11 x 13	12	3.00	1.35	12	4.00	1.80
12 x 13	12	3.20	1.70	12	4.20	2.00
12 x 14	12	3.20	1.70	12	4.20	2.00

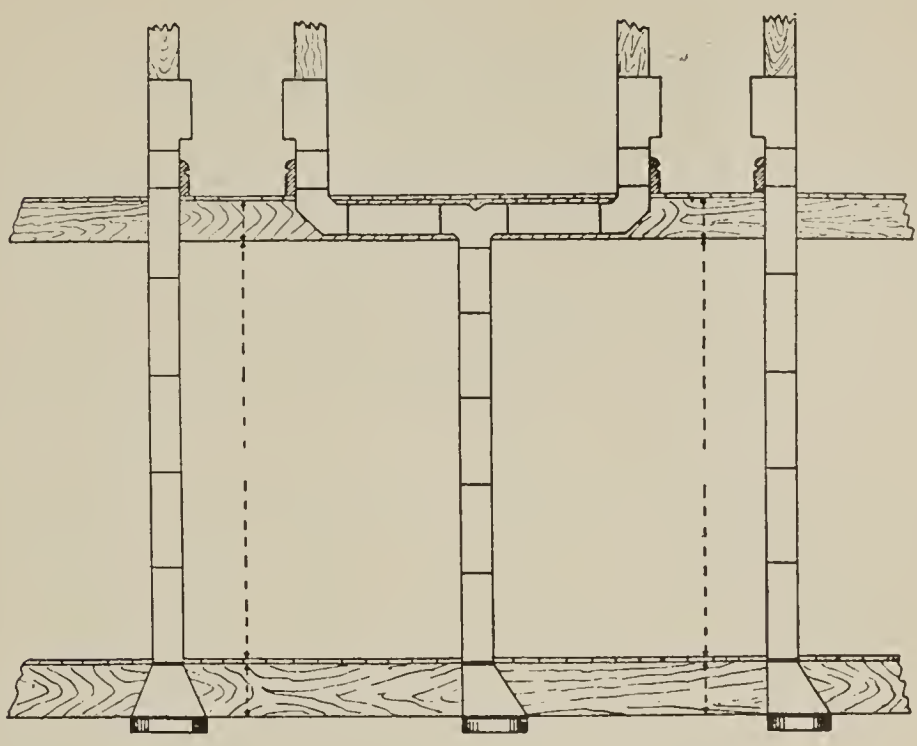


Fig. 1 Fig. 2 Fig. 3

NOTE:—All stack figures are based on the following: 1st floor joist, 10″; second floor, 8″. First floor ceiling height 9 ft. 2 in.

In ordering, always give ceiling height and depth of 1st and 2nd floor joist. If you cannot find your problem in Figs. 1 to 24, please furnish rough sketch.

For Double Wall-Stacks

Fig. 1, Double	7D	7½D	8D	9D
1 No. 56 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 9″ Section	.80	.90	.90	1.10
5 24″ Sections	9.00	10.00	10.00	12.00
1 No. 5 Boot	2.10	2.35	2.35	2.70
Total	$13.75	$15.25	$15.25	$18.00

Fig. 2, Double	7D	7½D	8D	9D
2 No. 56 Stack Heads	$ 3.70	$ 4.00	$ 4.00	$ 4.40
2 9″ Sections	1.60	1.80	1.80	2.20
2 No. 17 Elbows	2.80	3.00	3.00	3.60
1 No. 15 Tee	2.50	2.80	2.80	3.30
1 18″ Section	1.35	1.50	1.50	1.80
6 24″ Sections	10.80	12.00	12.00	14.40
1 No. 1 Boot	2.10	2.35	2.35	2.70
Total	$24.85	$27.45	$27.45	$32.40

Fig. 3, Double	7D	7½D	8D	9D
1 No. 56 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 9″ Section	.80	.90	.90	1.10
5 24″ Sections	9.00	10.00	10.00	12.00
1 No. 1 Boot	2.10	2.35	2.35	2.70
Total	$13.75	$15.25	$15.25	$18.00

For Single Wall-Stacks

[See preceding page for illustration]

Fig. 1, Single	6S	7S	7½S	8S	9S
1 No. 056 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
11 ft. Stack K D	4.18	4.18	4.62	4.62	4.84
1 No. 05 Boot	.70	.70	.80	.80	.90
Total	$ 5.58	$ 5.58	$ 6.22	$ 6.22	$ 6.64

Fig. 2, Single	6S	7S	7½S	8S	9S
2 No. 056 Stack Heads	$ 1.40	$ 1.40	$ 1.60	$ 1.60	$ 1.80
15 ft. Stack K D	5.70	5.70	6.30	6.30	6.60
2 No. 017 Elbows	1.40	1.40	1.60	1.60	1.80
1 No. 015 Tee	1.50	1.50	1.60	1.60	1.90
1 No. 01 Boot	.70	.70	.80	.80	.90
Total	$10.70	$10.70	$11.90	$11.90	$13.00

Fig. 3, Single	6S	7S	7½S	8S	9S
1 No. 056 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
11 ft. Stack K D	4.18	4.18	4.62	4.62	4.84
1 No. 01 Boot	.70	.70	.80	.80	.90
Total	$ 5.58	$ 5.58	$ 6.22	$ 6.22	$ 6.64

For Double Wall-Stacks

[See next page for illustration]

Fig. 4, Double	7D	7½D	8D	9D
1 No. 57 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 9″ Section	.80	.90	.90	1.10
3 No. 12 Angles	2.40	2.70	2.70	3.30
1 2″ Section	.45	.55	.55	.65
1 18″ Section	1.35	1.50	1.50	1.80
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 1 Boot	2.10	2.35	2.35	2.70
Total	$16.15	$18.00	$18.00	$21.35

Fig. 5, Double	7D	7½D	8D	9D
2 No. 56 Stack Heads	$ 3.70	$ 4.00	$ 4.00	$ 4.40
4 9″ Sections	3.20	3.60	3.60	4.40
1 4″ Section	.55	.65	.65	.75
1 12″ Section	.95	1.10	1.10	1.30
1 No. 15 Tee	2.50	2.80	2.80	3.30
2 No. 17 Elbows	2.80	3.00	3.00	3.60
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 5 Boot	2.10	2.35	2.35	2.70
Total	$23.00	$25.50	$25.50	$30.05

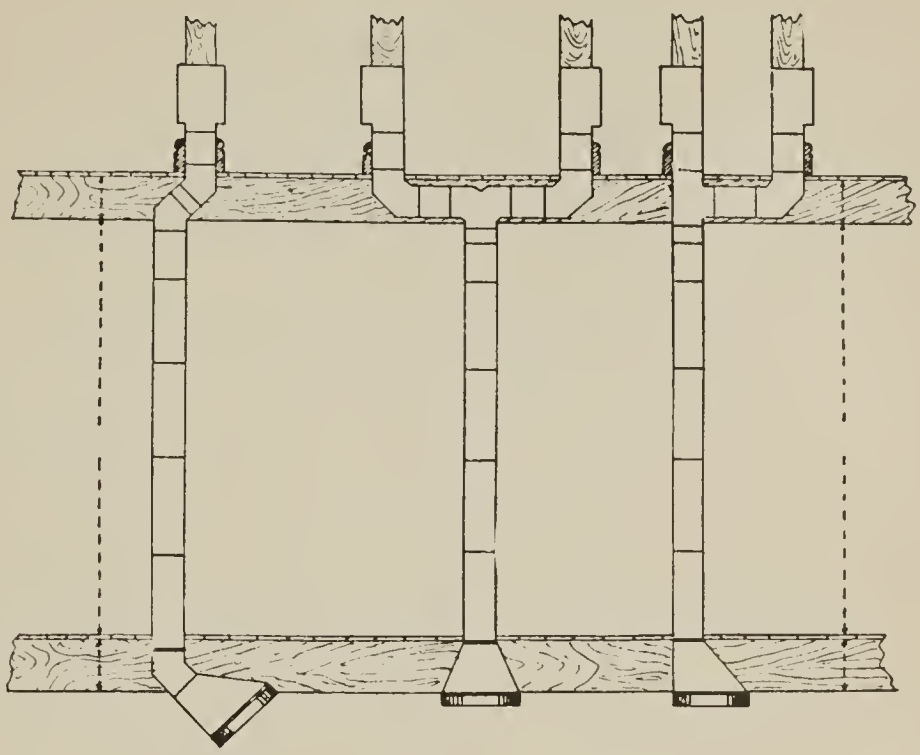


Fig. 4 Fig. 5 Fig. 6

NOTE:—All stack figures are based on the following: 1st floor joist, 10″; second floor, 8″. First floor ceiling height 9 ft. 2 in.

In ordering, always give ceiling height and depth of 1st and 2nd floor joist. If you cannot find your problem in Figs. 1 to 24, please furnish rough sketch.

For Double Wall-Stacks

Fig. 6, Double	7D	7½D	8D	9D
2 No. 56 Stack Heads	$ 3.70	$ 4.00	$ 4.00	$ 4.40
3 9″ Sections	2.40	2.70	2.70	3.30
1 No. 15½ Tee	1.50	1.60	1.60	1.90
1 12″ Section	.95	1.10	1.10	1.30
1 4″ Section	.55	.65	.65	.75
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 17 Elbow	1.40	1.50	1.50	1.80
1 No. 1 Boot	2.10	2.35	2.35	2.70
Total	$19.80	$21.90	$21.90	$25.75

For Single Wall-Stacks

Fig. 4, Single	6S	7S	7½S	8S	9S
1 No. 057 Stack Head	$ .80	$ .80	$ .90	$ .90	$ 1.00
3 No. 012 Angles	1.20	1.20	1.32	1.32	1.62
11 ft. Stack K D	4.18	4.18	4.62	4.62	4.84
1 No. 01 Boot	.70	.70	.80	.80	.90
Total	$ 6.88	$ 6.88	$ 7.64	$ 7.64	$ 8.36

Fig. 5, Single	6S	7S	7½S	8S	9S
2 No. 056 Stack Heads	$ 1.40	$ 1.40	$ 1.60	$ 1.60	$ 1.80
13 ft. Stack K D	4.94	4.94	5.46	5.46	5.72
1 No. 015 Tee	1.50	1.50	1.60	1.60	1.90
2 No. 017 Elbows	1.40	1.40	1.60	1.60	1.80
1 No. 05 Boot	.70	.70	.80	.80	.90
Total	$ 9.94	$ 9.94	$11.06	$11.06	$12.12

For Single Wall-Stacks

Fig. 6, Single	6S	7S	7½S	8S	9S
2 No. 056 Stack Heads	$ 1.40	$ 1.40	$ 1.60	$ 1.60	$ 1.80
1 No. 015½ Tee	.70	.70	.80	.80	.90
12 ft. Stack K D	4.56	4.56	5.04	5.04	5.28
1 No. 017 Elbow	.70	.70	.80	.80	.90
1 No. 01 Boot	.70	.70	.80	.80	.90
Total	$ 8.06	$ 8.06	$ 9.04	$ 9.04	$ 9.78

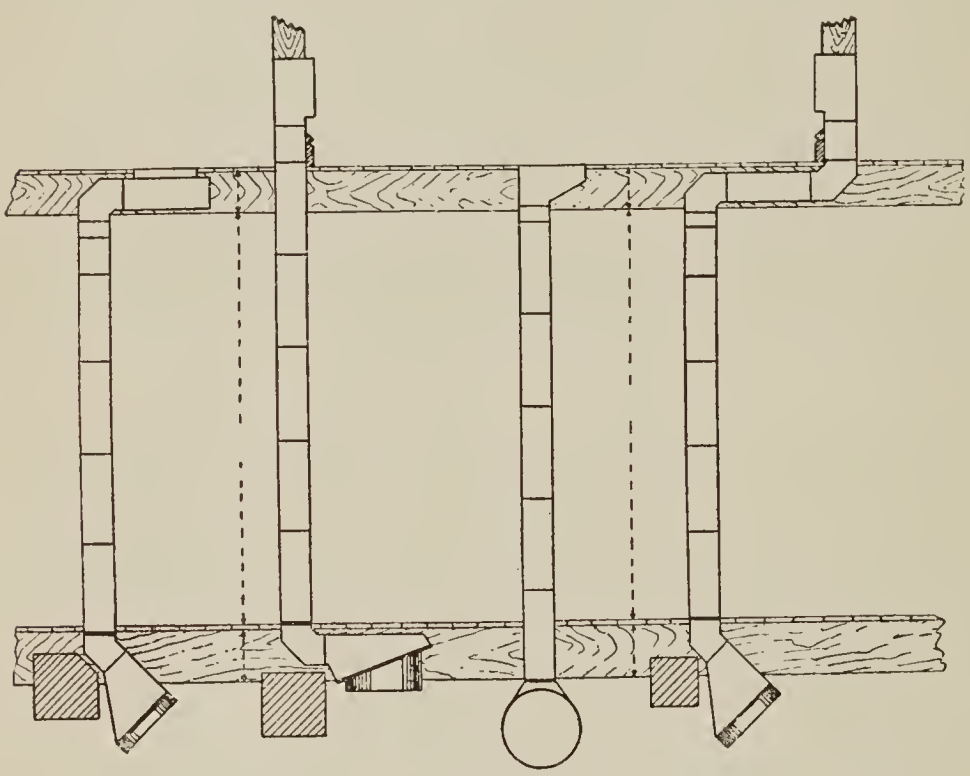


Fig. 7 **Fig. 8** **Fig. 9** **Fig. 10**

NOTE:—All stack figures are based on the following: 1st floor joist, 10″; second floor, 8″. First floor ceiling height 9 ft. 2 in.

In ordering, always give ceiling height and depth of 1st and 2nd floor joist. If you cannot find your problem in Figs. 1 to 24, please furnish rough sketch.

In the illustrations of wall pipe given on the pages showing Figs. 1 to 24 inclusive, we have endeavored to illustrate most every condition that would prevail in running wall pipe in the average house.

If you have conditions different from those found in the illustrations, please send us sketches and we are positive that we can work out your problems with the Tiffin line of Fittings.

For Double Wall-Stacks

Fig. 7, Double	7D	7½D	8D	9D
1 No. 52 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 No. 17 Elbow	1.40	1.50	1.50	1.80
1 4″ Section	.55	.65	.65	.75
1 12″ Section	.95	1.10	1.10	1.30
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 12 Angle	.80	.90	.90	1.10
1 No. 1 Boot	2.10	2.35	2.35	2.70
Total	$14 85	$16.50	$16.50	$19.45

For Double Wall-Stacks

[See preceding page for illustration]

Fig. 8, Double	7D	7½D	8D	9D
1 No. 56 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 9″ Section	.80	.90	.90	1.10
5 24″ Sections	9.00	10.00	10.00	12.20
1 No. 17 Elbow	1.40	1.50	1.50	1.80
1 No. 6 Boot	2.10	2.35	2.35	2.70
Total	$15.15	$16 75	$16.75	$20.00

Fig. 9, Double	7D	7½D	8D	9D
1 No. 50 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 4″ Section	.55	.65	.65	.75
5 24″ Sections	9.00	10.00	10.00	12.00
1 No. 4 Boot	2.10	2.35	2.35	2.70
Total	$13.50	$15.00	$15.00	$17.65

Fig. 10, Double	7D	7½D	8D	9D
1 No. 56 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 9″ Section	.80	.90	.90	1.10
2 No. 17 Elbows	2.80	3.00	3.00	3.60
5 24″ Sections	9.00	10.00	10.00	12.00
1 12″ Section	.95	1.10	1.10	1.30
1 4″ Section	.55	.65	.65	.75
1 No. 12 Angle	.80	.90	.90	1.10
1 No. 1 Boot	2.10	2.35	2.35	2.70
Total	$18.85	$20.90	$20.90	$24.75

For Single Wall-Stacks

Fig. 7, Single	6S	7S	7½S	8S	9S
1 No. 052 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
1 No. 017 Elbow	.70	.70	.80	.80	.90
10 ft. Stack K D	3.80	3.80	4.20	4.20	4.40
1 No. 012 Angle	.40	.40	.44	.44	.54
1 No. 01 Boot	.70	.70	.80	.80	.90
Total	$ 6.30	$ 6.30	$ 7.04	$ 7.04	$ 7.64

Fig. 8, Single	6S	7S	7½S	8S	9S
1 No. 056 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
11 ft. Stack K D	4.18	4.18	4.62	4.62	4.84
1 No. 017 Elbow	.70	.70	.80	.80	.90
1 No. 08 Boot	.70	.70	.80	.80	.90
Total	$ 6.28	$ 6.28	$ 7.02	$ 7.02	$ 7.54

Fig. 9, Single	6S	7S	7½S	8S	9S
1 No. 058 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
11 ft. Stack K D	4.18	4.18	4.62	4.62	4.84
1 No. 04 Boot	.70	.70	.80	.80	.90
Total	$ 5.58	$ 5.58	$ 6.22	$ 6.22	$ 6.64

For Single Wall-Stacks

[See preceding page for illustration]

Fig. 10, Single	6S	7S	7½S	8S	9S
1 No. 056 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
2 No. 017 Elbows	1.40	1.40	1.60	1.60	1.80
1 No. 012 Angle	.40	.40	.44	.44	.54
12 ft. Stack K D	4.56	4.56	5.04	5.04	5.28
1 No. 01 Boot	.70	.70	.80	.80	.90
Total	$ 7.76	$ 7.76	$ 8.68	$ 8.68	$ 9.42

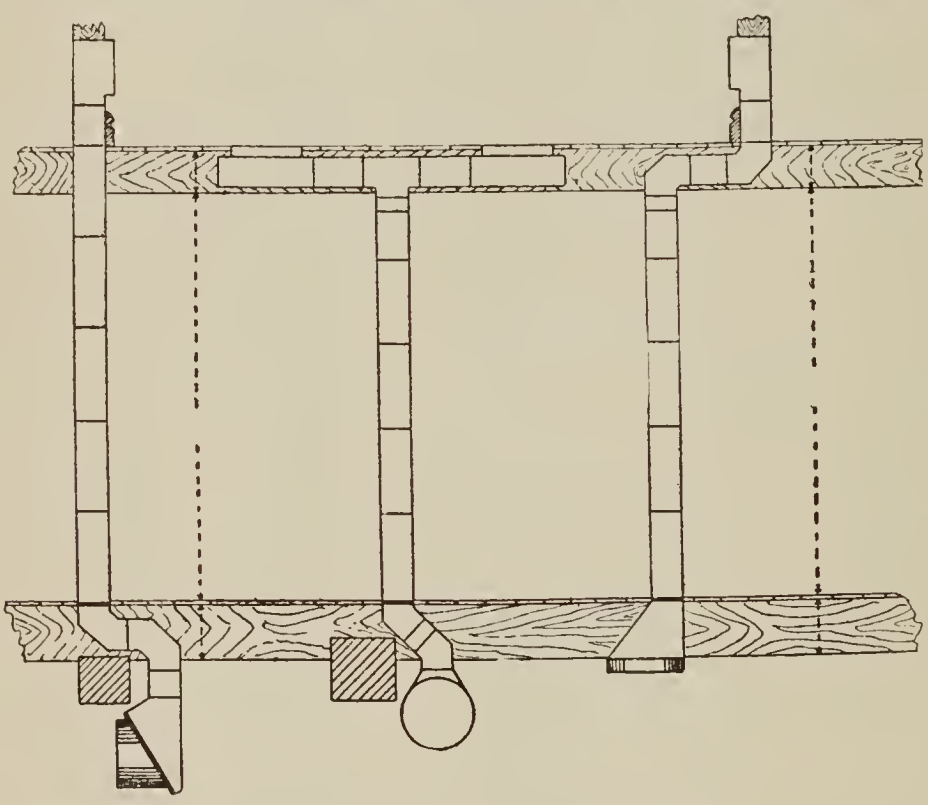


Fig. 11 **Fig. 12** **Fig. 13**

NOTE:—All stack figures are based on the following: 1st floor joist, 10″; second floor, 8″. First floor ceiling height 9 ft. 2 in.

In ordering, always give ceiling height and depth of 1st and 2nd floor joist. If you cannot find your problem in Figs. 1 to 24, please furnish rough sketch.

In the illustrations of wall pipe given on the pages showing Figs. 1 to 24 inclusive, we have endeavored to illustrate most every condition that would prevail in running wall pipe in the average house.

If you have conditions different from those found in the illustrations, please send us sketches and we are positive that we can work out your problems with the Tiffin line of Fittings.

For Double Wall-Stacks

Fig. 11, Double	7D	7½D	8D	9D
1 No. 56 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 9″ Section	.80	.90	.90	1.10
5 24″ Sections	9.00	10.00	10.00	12.00
2 No. 17 Elbows	2.80	3.00	3.00	3.60
1 6″ Section	.65	.75	.75	.85
1 No. 6 Boot	2.10	2.35	2.35	2.70
Total	$17.20	$19.00	$19.00	$22.45

For Double Wall-Stacks

[See preceding page for illustration]

Fig. 12, Double	7D	7½D	8D	9D
2 No. 52 Stack Heads	$ 3.70	$ 4.00	$ 4.00	$ 4.40
3 12″ Sections	2.85	3.30	3.30	3.90
1 4″ Section	.55	.65	.65	.75
1 2″ Section	.45	.55	.55	.65
1 No. 15 Tee	1.50	1.60	1.60	1.90
2 No. 12 Angles	1.60	1.80	1.80	2.20
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 4 Boot	2.10	2.35	2.35	2.70
Total	$19.95	$22.25	$22.25	$26.10

Fig. 13, Double	7D	7½D	8D	9D
1 No. 56 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
2 9″ Sections	1.60	1.80	1.80	2.20
2 No. 17 Elbows	2.80	3.00	3.00	3.60
1 4″ Section	.55	.65	.65	.75
4 24″ Sections	7.20	8.00	8.00	9.60
1 12″ Section	.95	1.10	1.10	1.30
1 No. 1 Boot	2.10	2.35	2.35	2.70
Total	$17.05	$18.90	$18.90	$22.35

For Single Wall-Stacks

Fig. 11, Single	6S	7S	7½S	8S	9S
1 No. 056 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
2 No. 017 Elbows	1.40	1.40	1.60	1.60	1.80
12 ft. Stack K D	4.56	4.56	5.04	5.04	5.28
1 No. 08 Boot	.70	.70	.80	.80	.90
Total	$ 7.36	$ 7.36	$ 8.24	$ 8.24	$ 8.88

Fig. 12, Single	6S	7S	7½S	8S	9S
2 No. 052 Stack Head	$ 1.40	$ 1.40	$ 1.60	$ 1.60	$ 1.80
1 No. 015 Tee	.70	.70	.80	.80	.90
12 ft. Stack K D	4.56	4.56	5.04	5.04	5.28
2 No. 012 Angles	.80	.80	.88	.88	1.08
1 No. 04 Boot	.70	.70	.80	.80	.90
Total	$ 8.16	$ 8.16	$ 9.12	$ 9.12	$ 9.96

Fig. 13, Single	6S	7S	7½S	8S	9S
1 No. 056 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
2 No. 017 Elbows	1.50	1.40	1.60	1.60	1.80
11 ft. Stack K D	4.18	4.18	4.62	4.62	4.84
1 No. 01 Boot	.70	.70	.80	.80	.90
Total	$ 6.98	$ 6.98	$ 7.82	$ 7.82	$ 8.44

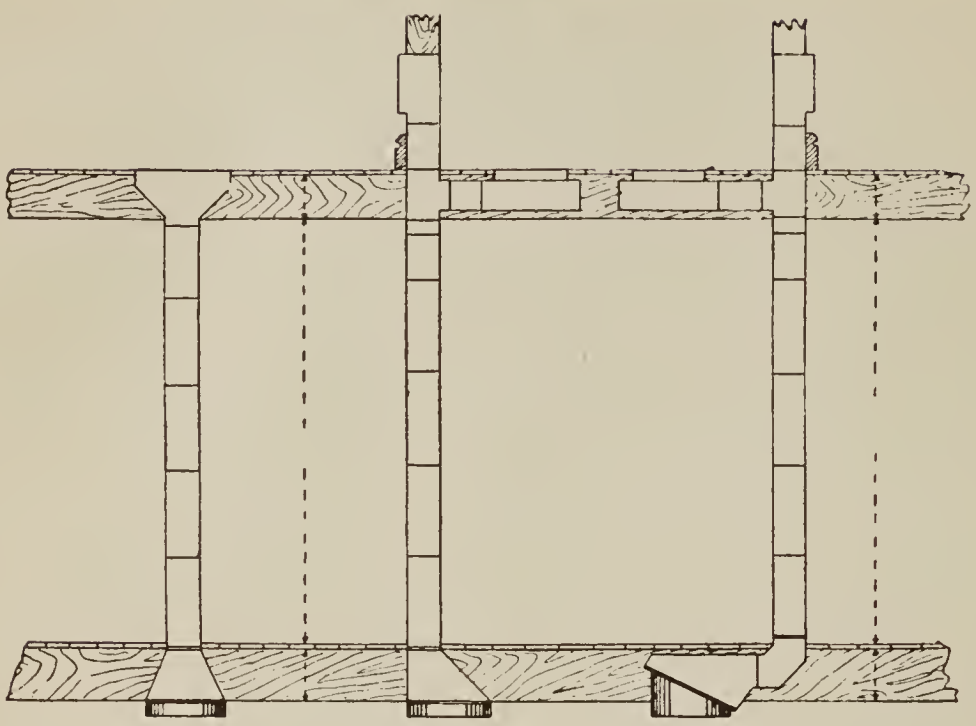


Fig. 14 Fig. 15 Fig. 16

NOTE:—All stack figures are based on the following: 1st floor joist, 10″; second floor, 8″. First floor ceiling height 9 ft. 2 in.

In ordering, always give ceiling height and depth of 1st and 2nd floor joist. If you cannot find your problem in Figs. 1 to 24, please furnish rough sketch.

In the illustrations of wall pipe given on the pages showing Figs. 1 to 24 inclusive, we have endeavored to illustrate most every condition that would prevail in running wall pipe in the average house.

If you have conditions different from those found in the illustrations, please send us sketches and we are positive that we can work out your problems with the Tiffin line of Fittings.

For Double Wall-Stacks

Fig. 14, Double	7D	7½D	8D	9D
1 No. 50 Stack Head	$ 1.85	$ 2.00	$ 2.00	$2.20
1 18″ Section	1.35	1.50	1.50	1.80
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 5 Boot	2.10	2.35	2.35	2.70
Total	$12.50	$13.85	$13.85	$16.30

Fig. 15, Double	7D	7½D	8D	9D
1 No. 56 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 No. 52 Stack Head	1.85	2.00	2.00	2.20
2 12″ Sections	1.90	2.20	2.20	2.60
1 4″ Section	.55	.65	.65	.75
1 6″ Section	.65	.75	.75	.85
4 24″ Sections	7.20	8.00	8.00	9.60
1 15½ Tee	1.50	1.60	1.60	1.90
1 No. 1 Boot	2.10	2.35	2.35	2.70
Total	$17.60	$19.55	$19.55	$22.80

For Double Wall-Stacks

[See preceding page for illustration]

Fig. 16, Double	7D	7½D	8D	9D
1 No. 56 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 No. 52 Stack Head	1.85	2.00	2.00	2.20
1 No. 15½ Tee	1.50	1.60	1.60	1.90
1 No. 17 Elbow	1.40	1.50	1.50	1.80
1 9″ Section	.80	.90	.90	1.10
1 12″ Section	.95	1.10	1.10	1.30
1 18″ Section	1.35	1.50	1.50	1.80
1 4″ Section	.55	.65	.65	.75
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 6 Boot	2.10	2.35	2.35	2.70
Total	$19.55	$21.60	$21.60	$25.35

For Single Wall-Stacks

Fig. 14. Single	6S	7S	7½S	8S	9S
1 No. 050 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
10 ft. Stack K D	3.80	3.80	4.20	4.20	4.40
1 No. 05 Boot	.70	.70	.80	.80	.90
Total	$ 5.20	$ 5.20	$ 5.80	$ 5.80	$ 6.20

Fig. 15, Single	6S	7S	7½S	8S	9S
1 No. 056 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
1 No. 052 Stack Head	.70	.70	.80	.80	.90
1 No. 15½ Tee	.70	.70	.80	.80	.90
11 ft. Stack K D	4.18	4.18	4.62	4.62	4.84
1 No. 01 Boot	.70	.70	.80	.80	.90
Total	$ 6.98	$ 6.98	$ 7.82	$ 7.82	$ 8.44

Fig. 16, Single	6S	7S	7½S	8S	9S
1 No. 056 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
1 No. 052 Stack Head	.70	.70	.80	.80	.80
1 No. 015½ Tee	.70	.70	.80	.80	.90
1 No. 017 Elbow	.70	.70	.80	.80	.90
12 ft. Stack K D	4.56	4.56	5.04	5.04	5.28
1 No. 08 Boot	.70	.70	.80	.80	.90
Total	$ 8.06	$ 8.06	$ 9.04	$ 9.04	$ 9.78

For Double Wall-Stacks

[See next page for illustration]

Fig. 17, Double	7D	7½D	8D	9D
1 No. 56 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
3 No. 17 Elbows	4.20	4.50	4.50	5.40
1 No. 20 Elbow	1.85	2.00	2.00	2.20
1 No. 19 Offset	1.60	1.80	1.80	2.20
2 4″ Sections	1.10	1.30	1.30	1.50
1 9″ Section	.80	.90	.90	1.10
1 12″ Section	.95	1.10	1.10	1.30
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 1 Boot	2.10	2.35	2.35	2.70
Total	$21.65	$23.95	$23.95	$28.20

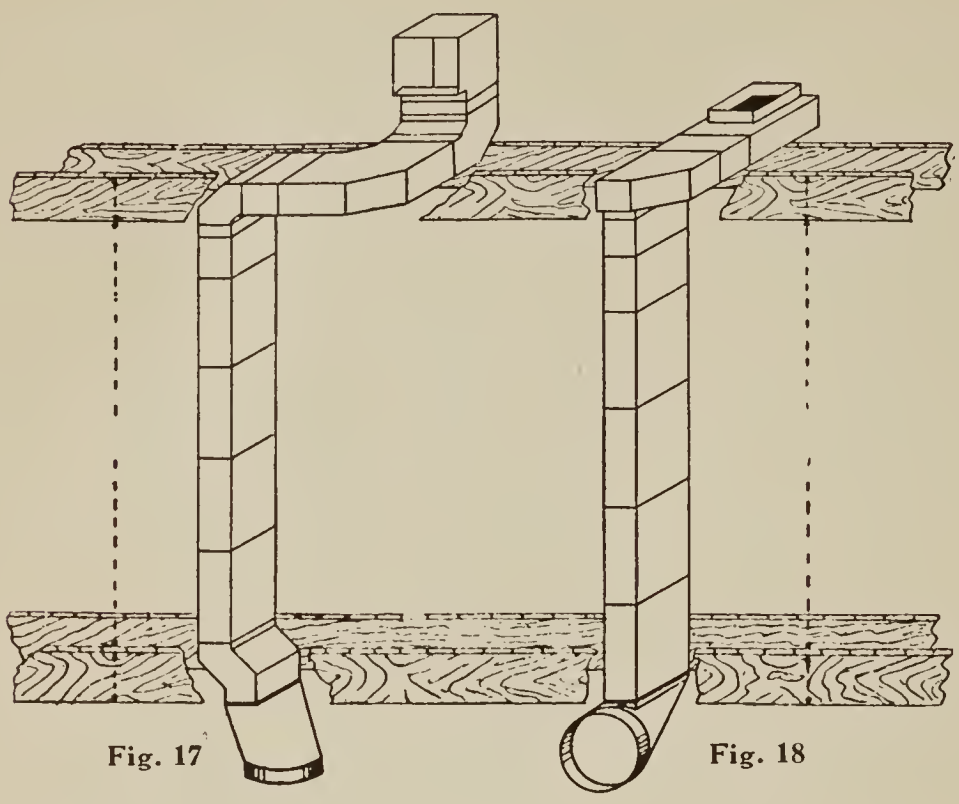


Fig. 17 Fig. 18

NOTE:—All stack figures are based on the following: 1st floor joist, 10″; second floor, 8″. First floor ceiling height 9 ft. 2 in.

In ordering, always give ceiling height and depth of 1st and 2nd floor joist. If you cannot find your problem in Figs. 1 to 24, please furnish rough sketch.

In the illustrations of wall pipe given on the pages showing Figs. 1 to 24 inclusive, we have endeavored to illustrate most every condition that would prevail in running wall pipe in the average house.

If you have conditions different from those found in the illustrations, please send us sketches and we are positive that we can work out your problems with the Tiffin line of Fittings.

For Double Wall-Stacks

Fig. 18, Double	7D	7½D	8D	9D
1 No. 52 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 No. 23 Offset	3.00	3.25	3.25	4.00
1 6″ Section	.65	.75	.75	.85
1 9″ Section	.80	.90	.90	1.10
1 18″ Section	1.35	1.50	1.50	1.80
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 4 Boot	2.10	2.35	2.35	2.70
Total	$16.95	$18.75	$18.75	$22.25

For Single Wall-Stacks

Fig. 17, Single	6S	7S	7½S	8S	9S
1 No. 056 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
3 No. 017 Elbows	2.10	2.10	2.40	2.40	2.70
1 No. 020 Elbow	1.00	1.00	1.08	1.08	1.28
1 No. 019 Offset	.80	.80	.88	.88	1.08
11 ft. Stack K D	4.18	4.18	4.62	4.62	4.84
1 No. 01 Boot	.70	.70	.80	.80	.90
Total	$ 9.48	$ 9.48	$10.58	$10.58	$11.70

For Single Wall-Stacks

[See preceding page for illustration]

Fig. 18, Single	6S	7S	7½S	8S	9S
1 No. 052 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
1 No. 023 Offset	.80	.80	.90	.90	1.00
11 ft. Stack K D	4.18	4.18	4.62	4.62	4.84
1 No. 04 Boot	.70	.70	.80	.80	.90
Total	$ 6.38	$ 6.38	$ 7.12	$ 7.12	$ 7.64

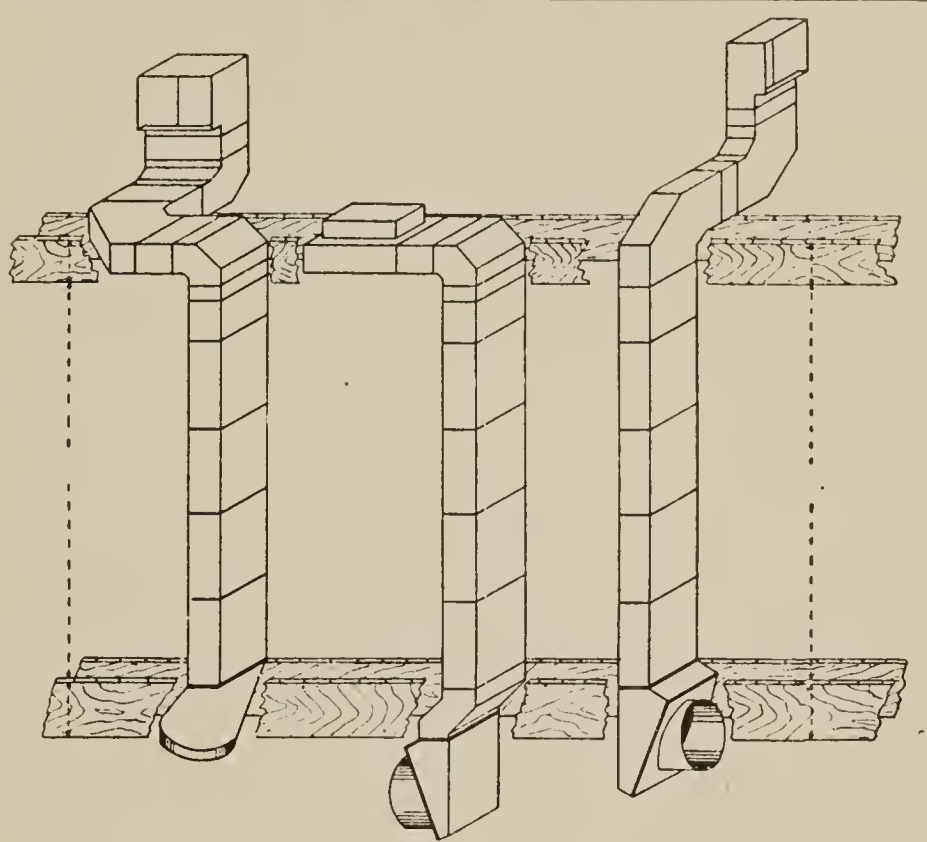


Fig. 19 **Fig. 20** **Fig. 21**

NOTE:—All stack figures are based on the following: 1st floor joist, 10″; second floor, 8″. First floor ceiling height 9 ft. 2 in.

In ordering, always give ceiling height and depth of 1st and 2nd floor joist. If you cannot find your problem in Figs. 1 to 24, please furnish rough sketch.

In the illustrations of wall pipe given on the pages showing Figs. 1 to 24 inclusive, we have endeavored to illustrate most every condition that would prevail in running wall pipe in the average house.

If you have conditions different from those found in the illustrations, please send us sketches and we are positive that we can work out your problems with the Tiffin line of Fittings.

For Double Wall-Stacks

Fig. 19, Double	7D	7½D	8D	9D
1 No. 56 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 4″ Section	.55	.65	.65	.75
1 6″ Section	.65	.75	.75	.85
2 9″ Sections	1.60	1.80	1.80	2.20
1 12″ Section	.95	1.10	1.10	1.30
4 24″ Sections	7.20	8.00	8.00	9.60
2 No. 17 Elbows	2.80	3.00	3.00	3.60
1 No. 20 Elbow	1.85	2.00	2.00	2.20
1 No. 1 Boot	2.10	2.35	2.35	2.70
Total	$19.55	$21.65	$21.65	$25.40

For Double Wall-Stacks

[See preceding page for illustration]

Fig. 20, Double	7D	7½D	8D	9D
1 No. 52 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 No. 17 Elbow	1.40	1.50	1.50	1.80
1 4″ Section	.55	.65	.65	.75
1 9″ Section	.80	.90	.90	1.10
1 12″ Section	.95	1.10	1.10	1.30
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 19 Offset	1.60	1.80	1.80	2.20
1 No. 6 Boot	2.10	2.35	2.35	2.70
Total	$16.45	$18.30	$18.30	$21.65

Fig. 21, Double	7D	7½D	8D	9D
1 No. 56 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
2 No. 20 Elbows	3.70	4.00	4.00	4.40
1 4″ Section	.55	.65	.65	.75
1 9″ Section	.80	.90	.90	1.10
1 18″ Section	1.35	1.50	1.50	1.80
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 6 Boot	2.10	2.35	2.35	2.70
Total	$17.55	$19.40	$19.40	$22.55

For Single Wall-Stacks

Fig. 19, Single	6S	7S	7½S	8S	9S
1 No. 056 Stack Head	$ .70	$ .70	$ .80	$ .80	$ 90
12 ft. Stack K D	4.56	4.56	5.04	5.04	5.28
2 No. 017 Elbows	1.40	1.40	1.60	1.60	1.80
1 No. 020 Elbow	1.00	1.00	1.08	1.08	1.28
1 No. 01 Boot	.70	.70	.80	.80	.90
Total	$ 8.36	$ 8.36	$ 9.32	$ 9.32	$10.16

Fig. 20, Single	6S	7S	7½S	8S	9S
1 No. 052 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
1 No. 017 Elbow	.70	.70	.80	.80	.90
10 ft. Stack K D	3.80	3.80	4.20	4.20	4.40
1 No. 019 Offset	.80	.80	.88	.88	1.08
1 No. 08 Boot	.70	.70	.80	.80	.90
Total	$ 6.70	$ 6 70	$ 7.48	$ 7.48	$ 8.18

Fig. 21, Single	6S	7S	7½S	8S	9S
1 No. 056 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
2 No. 020 Elbows	2.00	2.00	2.16	2.16	2.56
11 ft. Stack K D	4.18	4.18	4.18	4.62	4.84
1 No. 08 Boot	.70	.70	.80	.80	.90
Total	$ 7.58	$ 7.58	$ 8.38	$ 8.38	$ 9.20

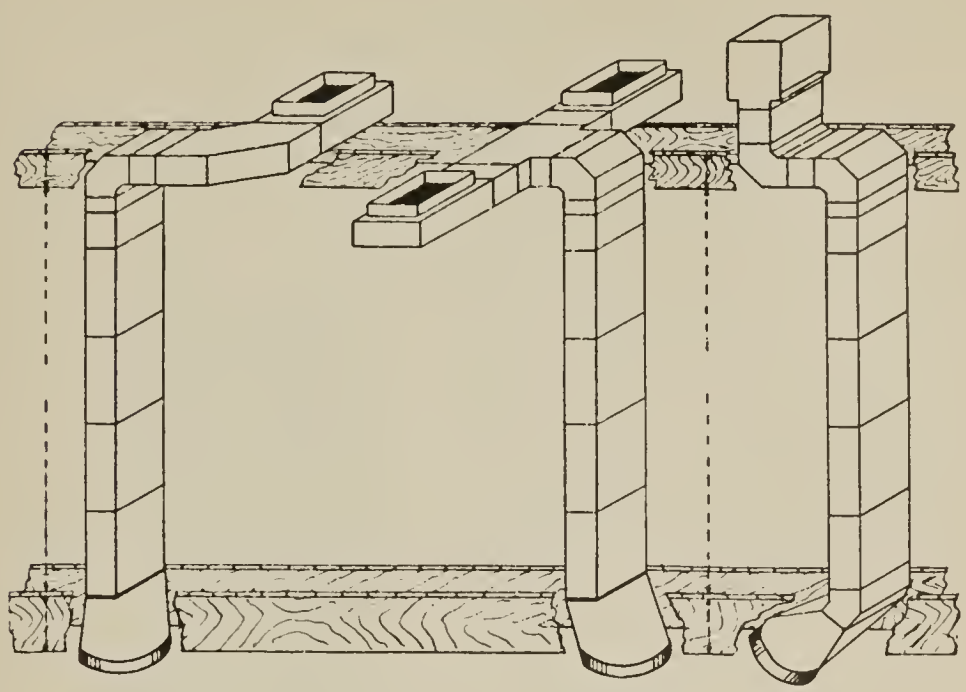


Fig. 22 Fig. 23 Fig. 24

NOTE:—All stack figures are based on the following: 1st floor joist, 10″; second floor, 8″. First floor ceiling height 9 ft. 2 in.

In ordering, always give ceiling height and depth of 1st and 2nd floor joist. If you cannot find your problem in Figs. 1 to 24, please furnish rough sketch.

In the illustrations of wall pipe given on the pages showing Figs. 1 to 24 inclusive, we have endeavored to illustrate most every condition that would prevail in running wall pipe in the average house.

If you have conditions different from those found in the illustrations, please send us sketches and we are positive that we can work out your problems with the Tiffin line of Fittings.

For Double Wall-Stacks

Fig. 22, Double	7D	7½D	8D	9D
1 No. 52 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
1 No. 20 Elbow	1.85	2.00	2.00	2.20
1 4″ Section	.55	.65	.65	.75
1 6″ Section	.65	.75	.75	.85
1 12″ Section	.95	1.10	1.10	1.30
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 17 Elbow	1.40	1.50	1.50	1.80
1 No. 5 Boot	2.10	2.35	2.35	2.70
Total	$16.55	$18.35	$18.35	$21.40

Fig. 23, Double	7D	7½D	8D	9D
2 No. 52 Stack Heads	$ 3.70	$ 4.00	$ 4.00	$ 4.40
1 No. 16 Tee	2.10	2.35	2.35	2.70
1 No. 17 Elbow	1.40	1.50	1.50	1.80
1 4″ Section	.55	.65	.65	.75
2 6″ Sections	1.30	1.50	1.50	1.70
1 12″ Section	.95	1.10	1.10	1.30
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 1 Boot	2.10	2.35	2.35	2.70
Total	$19.30	$21.45	$21.45	$24.95

For Double Wall-Stacks

[See preceding page for illustration]

Fig. 24, Double	7D	7½D	8D	9D
1 No. 57 Stack Head	$ 1.85	$ 2.00	$ 2.00	$ 2.20
2 No. 17 Elbows	2.80	3.00	3.00	3.60
1 4″ Section	.55	.65	.65	.75
1 6″ Section	.65	.75	.75	.85
1 9″ Section	.80	.90	.90	1.10
1 12″ Section	.95	1.10	1.10	1.30
4 24″ Sections	7.20	8.00	8.00	9.60
1 No. 12 Angle	.80	.90	.90	1.10
1 No. 1 Boot	2.10	2.35	2.35	2.70
Total	$17.70	$19.65	$19.65	$23.20

For Single Wall-Stacks

Fig. 22, Single	6S	7S	7½S	8S	9S
1 No. 052 Stack Head	$ .70	$ .70	$ .80	$ .80	$ .90
1 No. 020 Elbow	1.00	1.00	1.08	1.08	1.28
10 ft. Stack K D	3.80	3.80	4.20	4.20	4.40
1 No. 17 Elbow	.70	.70	.80	.80	.90
1 No. 05 Boot	.70	.70	.80	.80	.90
Total	$ 6.90	$ 6.90	$ 7.68	$ 7.68	$ 8.38

Fig. 23, Single	6S	7S	7½S	8S	9S
2 No. 052 Stack Heads	$ 1.40	$ 1.40	$ 1.60	$ 1.60	$ 1.80
1 No. 016 Tee	1.10	1.10	1.30	1.30	1.40
1 No. 017 Elbow	.70	.70	.80	.80	.90
11 ft. Stack K D	4.18	4.18	4.62	4.62	4.84
1 No. 01 Boot	.70	.70	.80	.80	.90
Total	$ 8.08	$ 8.08	$ 9.12	$ 9.12	$ 9.84

Fig. 24, Single	6S	7S	7½S	8S	9S
1 No. 057 Stack Head	$ .80	$ .80	$ .90	$ .90	$ 1.00
2 No. 017 Elbows	1.40	1.40	1.60	1.60	1.80
11 ft. Stack K D	4.18	4.18	4.62	4.62	4.84
1 No. 012 Angle	.40	.40	.44	.44	.54
1 No. 01 Boot	.70	.70	.80	.80	.90
Total	$ 7.48	$ 7.48	$ 8.36	$ 8.36	$ 9.08

Nested Round Tin Furnace Pipe

Put Up in Casks Containing 50 Feet of One Size

Length of Pipe before being locked

IT LOCKS

No Tools Required

Pipe after it is locked

A Labor Saver

Space Saver

Great Saving Effected

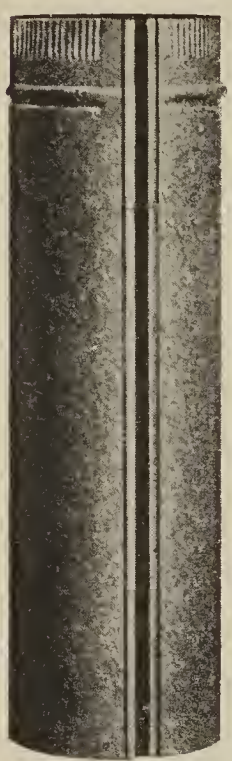
By Using Nested Pipe

Occupies 1-25th space of ordinary pipe;
Saves in weight as it requires no heavy crates;
Saves in freight as it takes 3rd class;
Saves in cartage and storage room;
Saves in labor as it goes together without tools of any kind and can be installed faster than ordinary pipe.

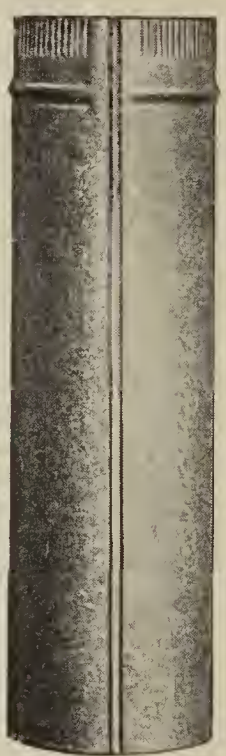
LIST PRICES

	8″	9″	10″	12″	14″
I. C. Tin Per Foot	$.30	$.32	$.36	$.41	....
I. X. Tin Per Foot	.36	.37	.41	.48	.63

Nested Galvanized Iron Pipe



Nested Galv. Pipe
For smoke pipe and cold air 6 to
30 in. inclusive

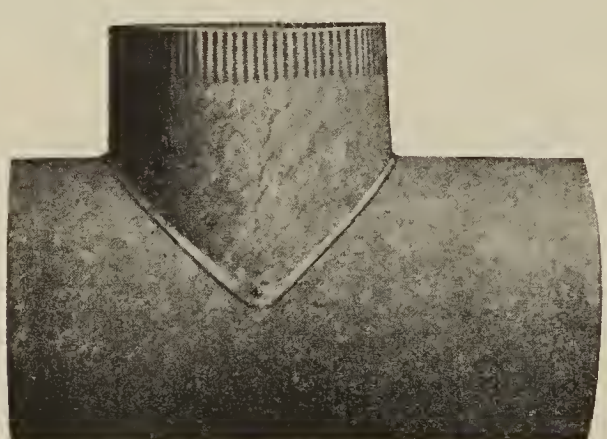


Our galvanized Pipe is made with a heavy shoulder that securely holds the joint in place.

List Prices Nested Galvanized Pipe

Inches Ga.	6	7	8	9	10	12	14	16	18	20	22	24	26	28	30
Pipe 26	$.33	$.36	$.38	$.40	$.44	$.58	$.63	$.72	$.90	$1.08	$1.35	$1.62	$1.89	$2.16	$2.43
Per Ft. 24	.42	.45	.49	.53	.58	.76	.80	.87							

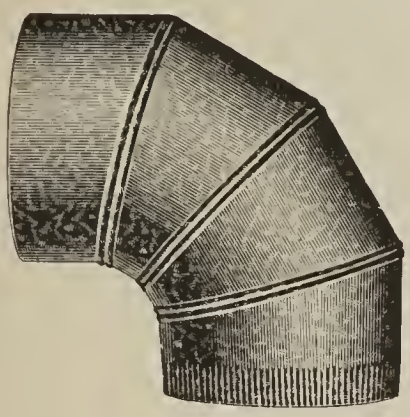
Galvanized Tees



LIST PRICES

Size	6″	7″	8″	9″	10″	12″	14″
Galv. No. 26 Ga.	$ .85	$ .90	$1.05	$1.20	$1.50	$2.10	$2.70
24 Ga.		1.20	1.35	1.65	1.95	2.55	3.24

Adjustable Galvanized Elbows and Angles



Elbows that can be adjusted

Machine made on special machinery designed by ourselves.

These elbows have a longer slip end, weigh more per dozen, and are stronger than any elbow on the market.

LIST PRICES

Size	GA.	6″	7″	8″	9″	10″	12″
Elbow 4PC, 90 Degree	26	$ .50	$ .60	$ .70	$ .80	$1.00	$1.40
	24	.70	.80	.90	1.10	1.30	1.70
Angle 2PC, 30 Degree	26	.42	.44	.48	.56	.64	.80
	24	.42	.44	.54	.62	.84	.96
Angle 2PC, 45 Degree	26	.42	.47	.54	.63	.77	.90
	24	.42	.60	.70	.80	1.00	1.40

Adjustable Galvanized Elbows —14 inches and larger are furnished with angle iron cleats, and bolts for tightening and loosening the adjustment.

Adjustable Elbows 12 inches and smaller have the regular adjustable edge, without the angle iron cleat.

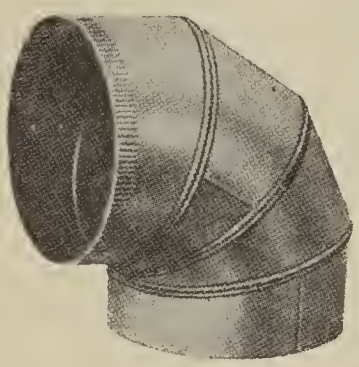
Adjustable from 90 Deg. to straight

LIST PRICES

Size	Ga.	14″	16″	18″	20″	22″	24″	26″	28″	30″
Adjustable From Straight To 90 Deg.	26	$1.80	$2.40	$3.00	3.60	$4.40	$5.20	$6.00	$7.00	$8.00
Adjustable From straight To 30 Deg. 2 Pc	26	.90	1.00	1.50	1.80	2.00	2.30	2.60	3.00	3.50
Adjustable From Straight To 45 Deg. 2 Pc	26	1.15	1.50	1.85	2.35	2.60	3.00	3.40	3.95	4.55
Adjustable From Straight To 60 Deg. 3 Pc	26	1.40	1.80	2.20	2.90	3.20	3.70	4.20	4.90	5.60

Four-Piece Tin Adjustable Elbows

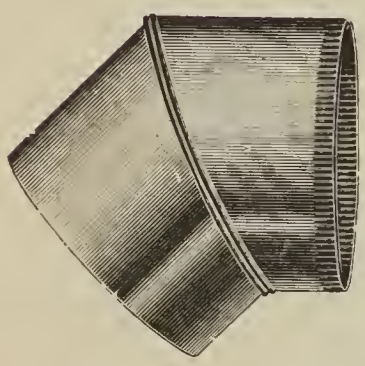
Adjust Readily and Will Not Come Apart



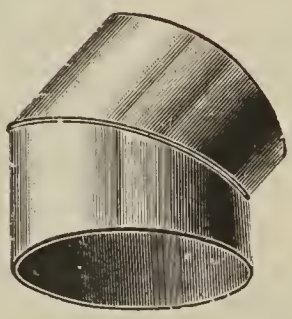
LIST PRICES

Size	8″	9″	10″	12″	14″
I. C. Tin Elbows Adj. 4 pc. 90°	$.46	$.50	$.60	$.84	
I. X. Tin Elbows Adj. 4 pc. 90°	.58	.64	.76	$1.00	$1.50

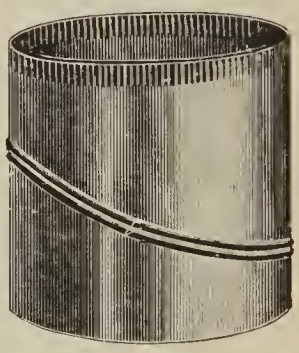
Two Piece Tin Adjustable Angles



ADJUSTABLE
From Straight to 45 Deg.



30 Degree Angle

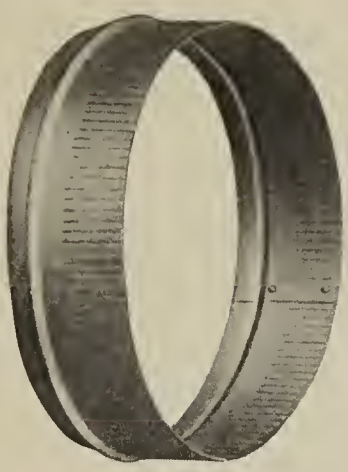


ADJUSTABLE
From 45 Deg. to Str.

LIST PRICE

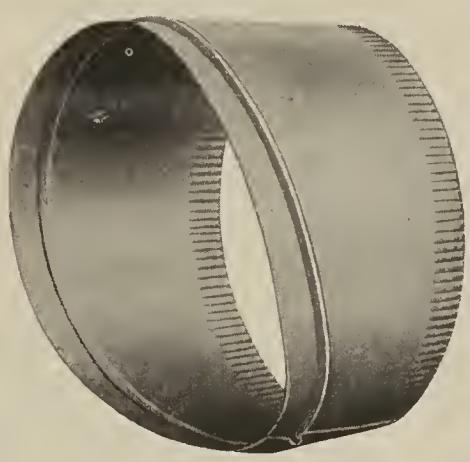
Size	8″	9″	10″	12″
I. C. Tin Angles Adj., 2 pc. 30°	$.25	$.27	$.31	$.40
I. C. Tin Angles Adj., 2 pc. 45°	.29	.31	.35	.55
I. X. Tin Angles Adj., 2 pc. 30°	.33	.35	.39	.50
I. X. Tin Angles Adi., 2 pc. 45°	.43	.45	.51	.68

Galvanized Casing Collars



Style A

Style B



Style C

LIST PRICES

Size	7″	8″	9″	10″	12″	14″	16″	18″	20″	22″	24″	26″	28″	30″
Style A	$.20	$.24	$.28	$.30	$.36	$.46	$ .60	$ .76	$ .90	$1.20	$1.40	$1.60	$1.80	$2.00
Style B	.32	.32	.36	.40	.48	.60	.80	1.00	1.20	2.00	2.40	2.80	3.40	3.80
Style C	.40	.40	.46	.50	.60	.74	1.00	1.26	1.80					

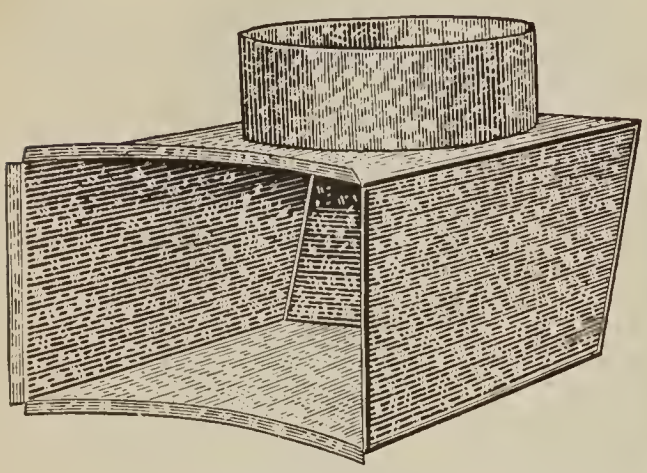
Draw Bands

Adjustable Draw Bands—Galvanized or Black

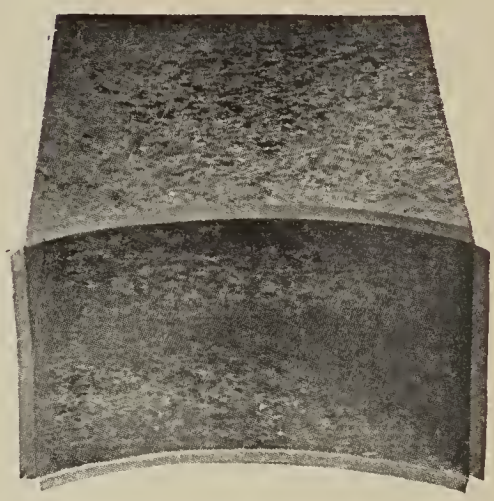
Sizes	6″	7″	8″	9″	10″	12″	14″
List	$ .40	$ .40	$ .44	$ .50	$ .55	$ .60	$ .65

Size	16″	18″	20″	22″	26″	28″	30″
List	$ .70	$ .80	$ .90	$1.00	$1.20	$1.30	$1.40

Galvanized Cold Air Connections



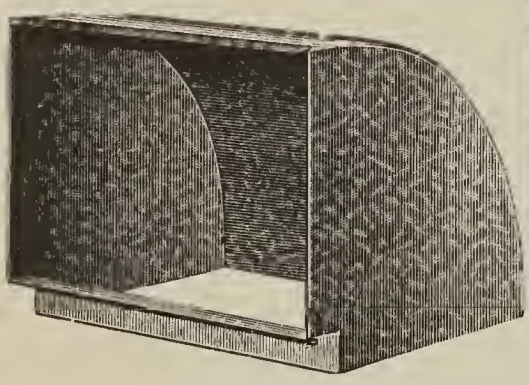
Style "B" Cold Air Connection



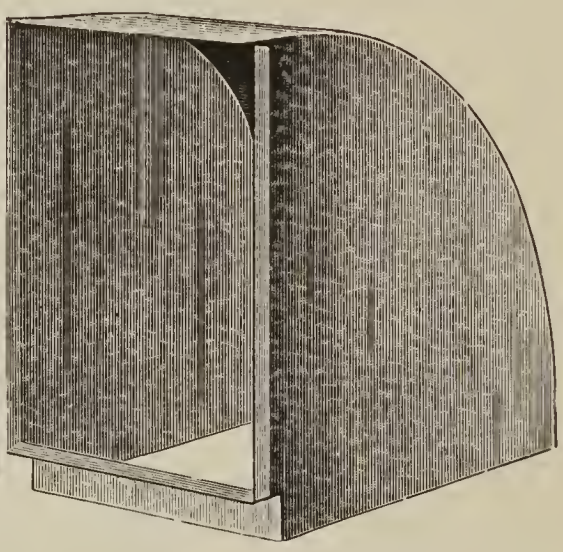
Style "A" Cold Air Connection

In Ordering Cold Air Connections State diameter of casing to which they are to be attached.

Galvanized 26 Ga. Rectangular Elbows



Style "B" Elbow, Short Way



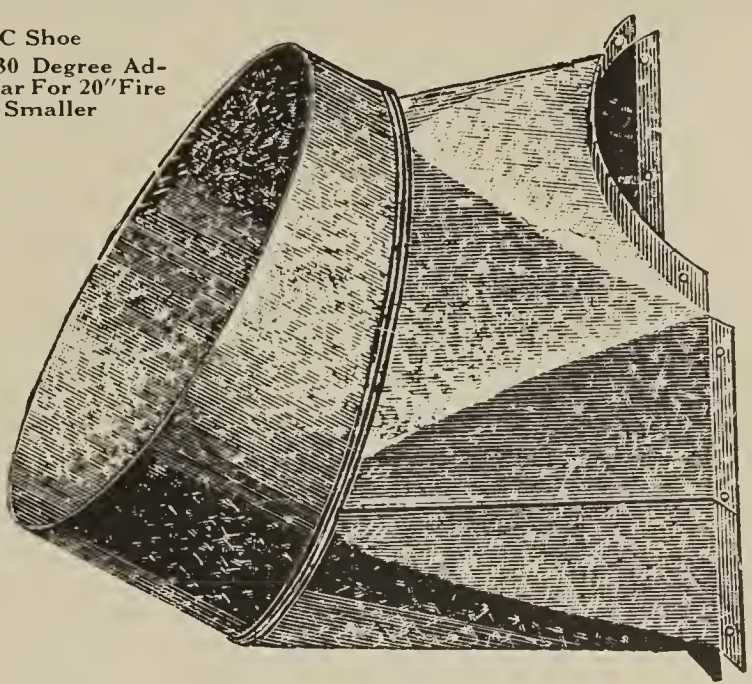
Style "A" Elbow, Long Way

Galvanized Rectangular Cold Air Pipe and Fittings 26 Gauge

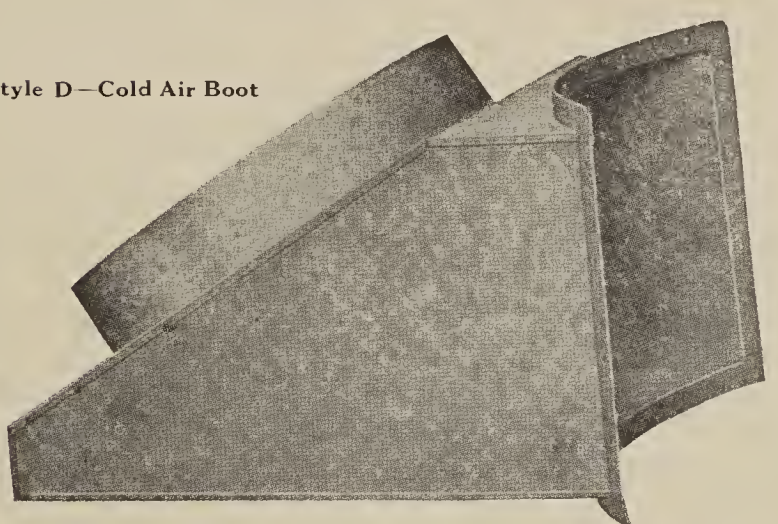
Size of Shoe	Size of Collar	Rectangular Pipe Per Foot	Galv. Angles Long Way A Elbow	Galv. Angles Short Way B Elbow	26 Ga. Galv. A Boot	26 Ga. Galv. B Boot
12 x 18	16	$1.20	$3.80	$3.00	$3.50	$4.80
13 x 20	18	1.28	4.40	3.20	4.00	5.60
14 x 23	20	1.36	5.00	3.40	4.50	6.40
14 x 28	22	1.52	5.60	3.80	....	6.50
14 x 33	24	1.76	6.20	4.40	....	6.70
15½ x 34	26	1.92	8.00	4.80	....	8.00
15½ x 40	28	2.08	8.40	5.20	....	9.00

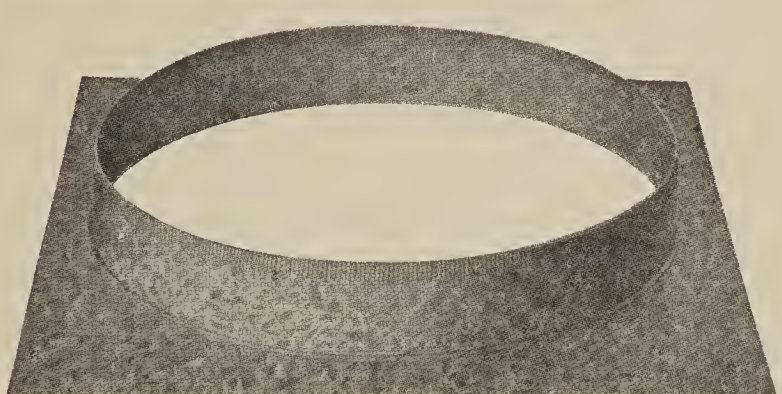
Galvanized Cold Air Connections

Style C Shoe
Made with 30 Degree Adjustable Collar For 20″ Fire Pot or Smaller



Style D—Cold Air Boot



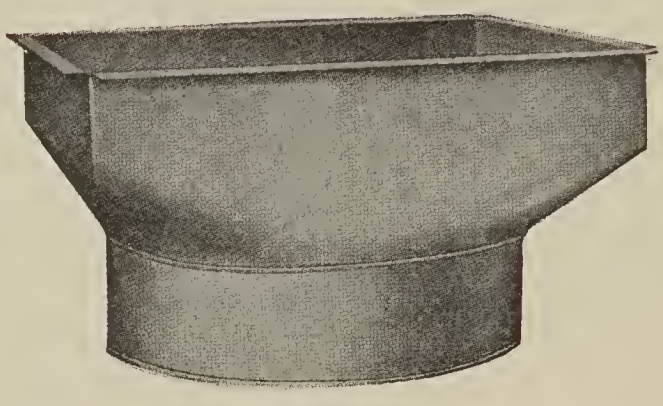


Style K—Cold Air Head

List Prices of Cold Air Boots and Cold Air Heads

Throat Sizes	Collar Sizes	Style C Boots	Styles D Boots	Size Squares C. A. Heads	List Price C. A. Heads Style K
10 x 16	14	$3.30	$4.40	18 x 20″	$1.66
12 x 18	16	3.80	4.80	20 x 24″	1.80
13 x 20	18	4.30	5.60	22 x 24″	1.96
14 x 23	20	4.70	6.40	24 x 26″	2.26
14 x 28	22	.....	6.50	26 x 28″	2.56
14 x 33	24	.....	6.70	28 x 30″	2.86
15½ x 34	26	.....	8.00	30 x 32″	3.16
15½ x 40	28	.....	9.00	32 x 34″	3.46
15½ x 48	30	.....	10.00	34 x 36″	3.76

Single Floor Register Boxes



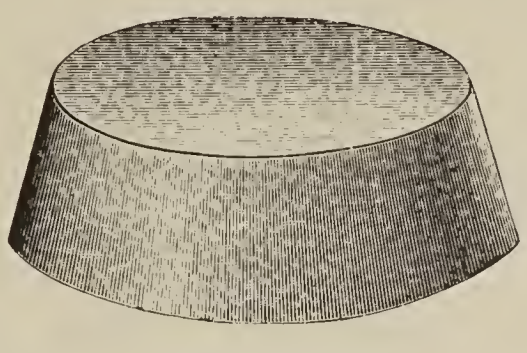
Frictionless Floor Register Pans

No square corners to catch and hold dirt. Sanitary and efficient.

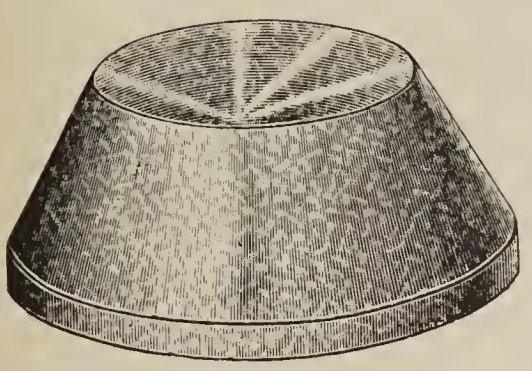
LIST PRICES

Size	I. C. Tin	I. X. Tin	Galv.
8 x 10	$ .60	.....	$ .90
8 x 12	.64	.....	1.00
9 x 12	.64	.....	1.00
10 x 12	.72	$ .90	1.30
10 x 14	.80	1.00	1.40
12 x 14	.96	1.20	1.50
12 x 15	.....	1.20	1.50
12 x 17	.....	1.30	1.60
12 x 19	.....	1.40	1.70
14 x 16	.....	1.60	1.80
14 x 18	.....	1.80	2.00
14 x 20	.....	2.00	2.20
14 x 22	.....	2.20	2.40
16 x 18	.....	2.20	2.50
16 x 20	.....	2.50	2.60
16 x 24	.....	3.00	3.00
18 x 21	.....	3.40	3.40
18 x 24	.....	3.60	3.60
20 x 20	.....	3.80	3.80
20 x 24	.....	4.00	4.00
20 x 26	.....	.....	4.50
21 x 29	.....	.....	5.00
24 x 24	.....	.....	6.00
24 x 30	.....	.....	6.50
27 x 27	.....	.....	6.50
27 x 38	.....	.....	8.00
28 x 30	.....	.....	7.00
30 x 30	.....	.....	7.00
30 x 36	.....	.....	8.00
38 x 42	.....	.....	11.00

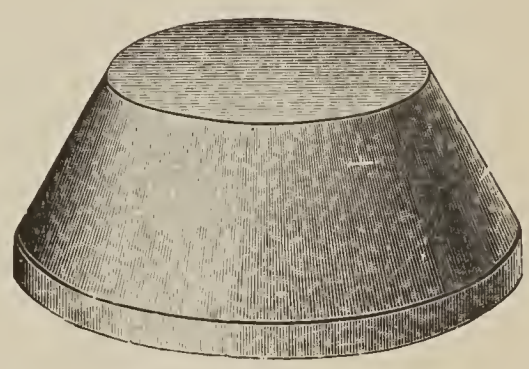
Casing Bonnets



Style "A" Flat Top



Style "B" Cone Top



Style "C" Flat Top

List Prices on Furnace Casing Bonnets

Sizes	36″	38″	40″	42″	44″	46″	48″	50″
"A"	$8.30	$10.00	$10.50	$12.50	$12.70	$14.00	$14.30	$15.00
"B" & "C"	9.40	11.75	12.10	13.50	13.80	14.50	14.90	16.00

Sizes	52″	56″	58″	60″	62″	64″	66″	68″
"A"	$15.40	$16.50	$19.00	$19.30	$21.50	$22.00	$23.90	$24.20
"B" & "C"	16.50	18.20	20.50	20.90	22.50	23.10	24.90	25.30

Combined Price List of Round Pipe and Fittings

SIZES	5-6 inch	7 inch	8 inch	9 inch	10 inch	11-12 inch	13-14 inch	15-16 inch	18 inch	20 inch	22 inch	24 inch	26 inch	28 inch	30 inch
I. C. Hot Air Pipe, per foot, made-up	$ .28	.....	$ .32	$ .34	$ .38	$ .43									
I. X. Hot Air Pipe, per foot, made-up	.36	.....	.38	.39	.43	.50	$ .65	$ .74	$ .92	$ 1.10	$ 1.37	$ 1.64			
Nested Pipe															
I. C. Hot Air Pipe, per foot, nested	.27	.....	.30	.32	.36	.41									
I. X. Hot Air Pipe, per foot, nested	.34	.....	.36	.37	.41	.48	.63	.72	.90	1.08	1.35	1.62	$ 1.89	$ 2.16	$ 2.43
Galv. I. Pipe, per foot, 26 ga., nested	.33	.36	.38	.40	.44	.58	.63	.72	.90	1.08	1.35	1.62	1.89	2.16	2.43
Galv. I. Pipe, per foot, 24 ga., nested	.42	.45	.49	.53	.58	.76	.80	.87							
Elbows and Angles															
I. C. Tin Elbows Adj. 4 Pc. 90 degree	.38	.....	.46	.50	.60										
I. X. Tin Elbows Adj. 4 Pc. 90 degree	.....	.....	.58	.64	.76	1.00	1.50	2.00	2.50	3.10					
I. C. Ang. Adj. 2 pc. 30 deg	.....	.....	.25	.27	.31										
I. C. Ang. Adj. 2 pc. 45 deg	.....	.....	.29	.31	.35										
I. C. Ang. Adj. 3 pc. 60 deg	.....	.....	.40	.44	.52										
I. X. Ang. Adj. 2 pc. 30 deg	.....	.....	.33	.35	.39	.50									
I. X. Ang. Adj. 2 pc. 45 deg	.....	.....	.43	.45	.51	.68									
I. X. Ang. Adj. 3 pc. 60 deg	.....	.....	.50	.54	.64	.84	1.20	1.60	2.00	2.50					
Gal. I. Ells. Adj. 4 pc. 26 ga	.50	.60	.70	.80	1.00	1.40	1.80	2.40	3.00	3.60	4.40	5.20	6.00	7.00	8.00
Gal. I. Ells. Adj. 4 pc. 24 ga	.70	.80	.90	1.10	1.30	1.70									
Gal. I. Ang. Adj. 2 pc. 30 deg. 26 ga	.42	.44	.48	.56	.64	.80	.90	1.00	1.50	1.80	2.00	2.30	2.60	3.00	3.50
Gal. I. Ang. Adj. 2 pc. 45 deg. 26 ga	.42	.47	.54	.63	.77	.90	1.15	1.50	1.85	2.35	2.60	3.00	3.40	3.95	4.55
Gal. I. Ang. Adj. 2 pc. 30 deg. 24 ga	.42	.44	.54	.62	.84	.96	1.08	1.20							
Gal. I. Ang. Adj. 2 pc. 45 deg. 24 ga	.42	.60	.70	.80	1.00	1.40									
Casing Collars, Style A	.....	.20	.24	.28	.30	.36	.46	.60	.76	.90	1.20	1.40	1.60	1.80	2.00
Casing Collars, Style B	.....	.32	.32	.36	.40	48	.60	.80	1.00	1.20	2.00	2.40	2.80	3.40	3.80
Casing Collars, Style C	.....	.40	.40	.46	.50	.60	.74	1.00	1.26	1.80					

THE TIFFIN ART METAL COMPANY

Data of Practical Value to Furnace Men

Area and Circumference of Round Pipes

Diameter of Pipe, Inches	Area in Square Inches	Circumference Round Pipe	Diameter of Pipe, Inches	Area in Square Inches	Circumference Round Pipe
7	38	21.99	22	380	69.11
8	50	25.13	24	452	75.39
9	63	28.27	26	531	81.68
10	78	31.41	28	616	87.96
11	95	34.55	30	707	94.24
12	113	37.69	32	804	100.5
14	154	43.98	34	908	106.8
16	201	50.26	36	1018	113.0
18	254	56.54	38	1135	119.3
20	314	62.83	40	1257	125.6

Useful Rules to Know

.7854 times the square of the diameter equals the area of a circle.
Multiply the diameter by 3.1416 or by three and one-seventh, using any number of decimals that may be considered necessary. Product will be circumference.
Diameter of a circle when circumference is given: Divide the given circumference by 3.1416.
To find the area of a circle multiply .7854 by the square of the diameter.
3.1416 times the diameter of a circle equals the circumference.
Three and one-seventh times the diameter is near enough for most practical purposes.
Circumference of a circle times 0.159155 equals radius.
Circumference of a circle times 0.31831 equals diameter.
Diameter of a circle times 0.86 equals side of inscribed equilateral triangle.
Diameter of a circle times 0.7071 equals side of an inscribed square.
Circumference of a circle times 0.225 equals side of an inscribed square.
Circumference of a circle times 0.282 equals side of an equal square.
Diameter of a circle times 0.8862 equals side of an equal square.
Base of a triangle times ½ the altitude equals area.
Multiplying both diameter and .7854 together equals area of an ellipse.

Pipe and Register Sizes

In trunk line work make the capacity of trunk line equal to all pipes running from it, reducing as each heat pipe is taken off.

The following table gives the capacities of various size pipes, also the registers; also showing the size of registers suitable for each of these pipe sizes. The free air area of registers is also stated:

Round Pipe Inches	Cross Section Square Inches	Register Sizes Regular—Floor & Plain Side Wall	Free Air Opening Square Inches	Base Board First Floor Only	Free Air Opening Square Inches	Side Wall 2nd and 3rd Floors	Free Air Opening Square Inches
8	50.27	8 x 12	57.60	7 x 12	53:20	8 x 10	49.50
9	63.61	9 x 12	64.80	8 x 13	64.40	8 x 12	59.65
10	78.54	10 x 14	84.00	10 x 12	75.00	9 x 12	66.16
11	95.03	12 x 14	100.80	10 x 14	87.81		
12	113.09	12 x 15	108.00	12 x 14	105.51		
13	132.73	14 x 16	134.40				
14	153.93	14 x 18	151.20				
15	176.71	16 x 20	192.00				
16	201.06	16 x 20	192.00				
18	254.46	18 x 24	259.20				
20	314.16	22 x 24	316.80				
22	380.13	24 x 27	388.80				
24	452.39	24 x 32	460.80				
26	530.93	26 x 34	530.40				
28	615.75	30 x 34	612.00				
30	706.86	30 x 42	756.00				
32	804.24	36 x 36	877.60				
34	907.92	36 x 42	907.20				
36	1017.8	36 x 48	1036.80				
38	1134.1	40 x 48	1152.00				
40	1256.6	42 x 50	1260 00				

Dampers

Regular Sizes

Cast Iron Dampers
With New Steel Spindle, Wood or Nickel Coil Handles

Dampers

Size	5″	6″	7″	8″
Doz.	$3.00	$3.50	$5.00	$8.00

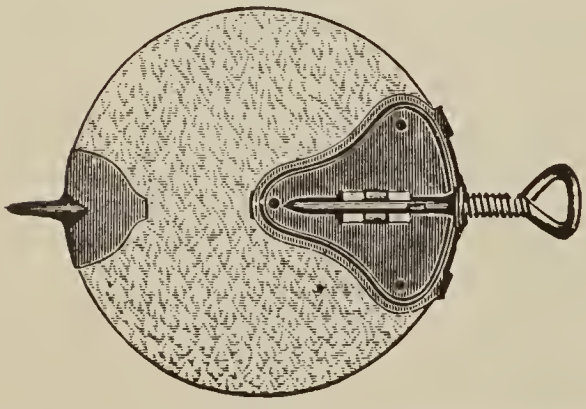
Size	9″	10″	12″	14″
Doz.	$12.00	$15.00	$18.00	$22.00

Hot Air Dampers

Size	7″	8″	9″	10″	12″	14″
List Per Doz.	$1.60	$2.20	$2.60	$2.80	$3.50	$5.00

No Rivet Damper Clips and Tail Pieces

No Rivets Necessary



LIST PRICES

	Per Dozen	Per Gross
Damper Clips	$ 1.10	$ 13.20
Tail Pieces	.20	2.40

Parker-Kalon Hardened Sheet Metal Screws

Patented

	Less than 100 Gross Per Gross	Less than 100 Gross Per 1000	100 Gross to 350 Gross Per Gross	100 Gross to 350 Gross Per 1000
No. 6 x 3/8" (3/32" x 3/8")	$ .48	$3.31	$ .46	$3.17
No. 7 x 1/2" (1/8" x 1/2")	.52	3.59	.50	3.45
No. 10 x 3/4" (3/16" x 3/4")	.68	4.71	.66	4.57
No. 10 x 1 1/4" (3/16" x 1 1/4")	.83	5.76	.80	5.55
No. 14 x 7/8" (1/4" x 7/8")	.83	5.76	.80	5.55
No. 14 x 1 1/2" (1/4" x 1 1/2")	1.30	9.05	1.28	8.91

Above Prices for either Round or Flat Head.

Parker-Kalon Hardened Masonry Nails

Size	In Boxes of 100 Steel Finish per 100	In Boxes of 100 Electro-Galvanized per 100	In Bulk, Packed in Kegs* Steel Finish per 100	In Bulk, Packed in Kegs* Electro-Galvanized per 100
3/16" x 1"	$ .55	$ .60	$ .53	$ .58
1/4" x 1 1/2"	.95	1.10	.93	1.08
1/4" x 2"	1.15	1.35	1.13	1.33

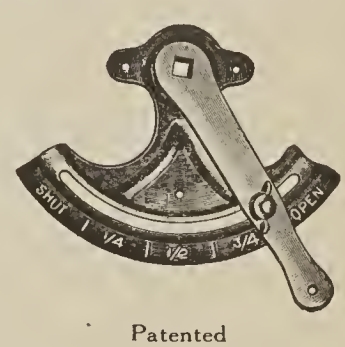
*A keg contains approximately the following quantities:—3/16" x 1"—10000; 1/4" x 1 1/2"—7500; 1/4" x 2"—5000.

Parker-Kalon "Unxld" Damper Quadrants

(Made of Pressed Steel)

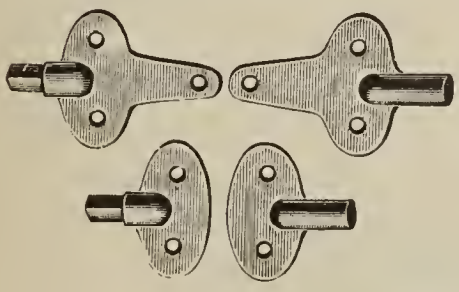
Furnished in Electro-Galvanized Finish

Quantity	3/8" Size	1/2" Size
Less than 200	$ .42 each	$ .47 each
200 to 500	.41 "	.46 "
500 to 1000	.40 "	.45 "
1000 and over	.39 "	.44 "



Patented

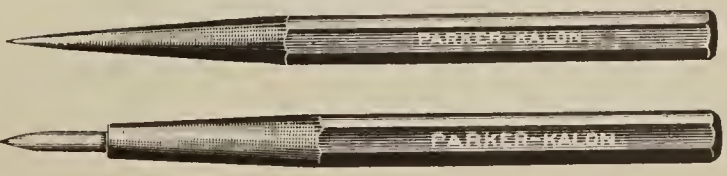
Parker-Kalon Damper Bearings

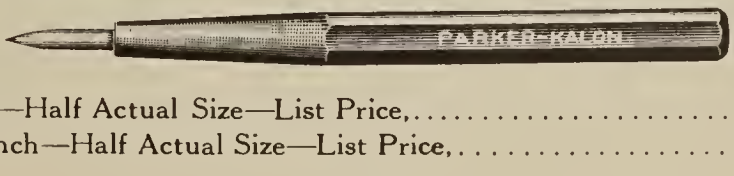


Furnished in Electro-Galvanized Finish

Size	
3/8"	$ .16 per set
1/2"	.24 " "

Punches





Stop Punch—Half Actual Size—List Price, ... $ .30 each
Straight Punch—Half Actual Size—List Price, ... $ .20 each

Warm Air Pipe Insulation

Asbestos Corrugated Paper

Asbestos Corrugated Paper is the best fire-proof material for covering heaters and hot air pipes. It also protects the metal surface, thus preventing rust and corrosion. Wherever a light, durable, fire-proof material is required, Asbestos Corrugated Paper will be found very satisfactory.

If the furnace and pipes are covered with one layer of Asbestos Corrugated Paper, the heat loss through the pipe will be about 32 per cent less than it would be if the pipes were left uncovered. Over a heating season a remarkable amount of heat is conserved.

Put up in rolls 36½″ wide containing 250 square feet. Approximate weight 65 lbs. per roll. Packed 4 rolls to the crate. Crate weighs approximately 22 lbs.

List Price Per Sq. Ft. . . . . . $ .10

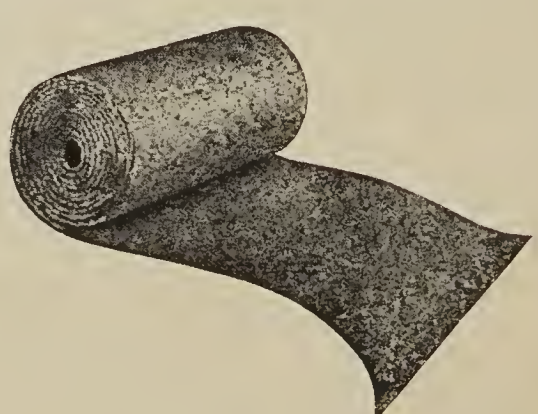
Plain Asbestos Paper

12 lb. Asbestos Paper. In rolls of 50 lbs., and 24″–36″ wide.

Weighs approximately 12 lbs. to 33⅓ lineal feet. Prices vary according to quantity ordered.

Special price made on 1000 lb. lots.

List Price $ .15 per lb. . . . . . .



Asbestos Furnace Cement

Prepared especially for heat resistance on furnace casting by one of the oldest and most reliable manufacturers. Packed in 5, 10 and 25-lb. cans; 50 and 100-lb steel kegs; 100 to 300-lb. tubs, or 800-lb. barrels.

5 to 10-lb. cans	$ .14
25-lb. cans	.14
100-lb. to 300-lb. kegs	.11
800-lb. barrels	.10

Special price on quantity lots

Furnace Chain

"Bulldog" Safety Regulator Chain

Strong—Smooth—Safe. Sold in lengths to suit.
List Price, per foot.....$ .05

"Asbestos" Dry Flour Paste

Handy 10 lb. Cloth Bag

List Prices

Bags

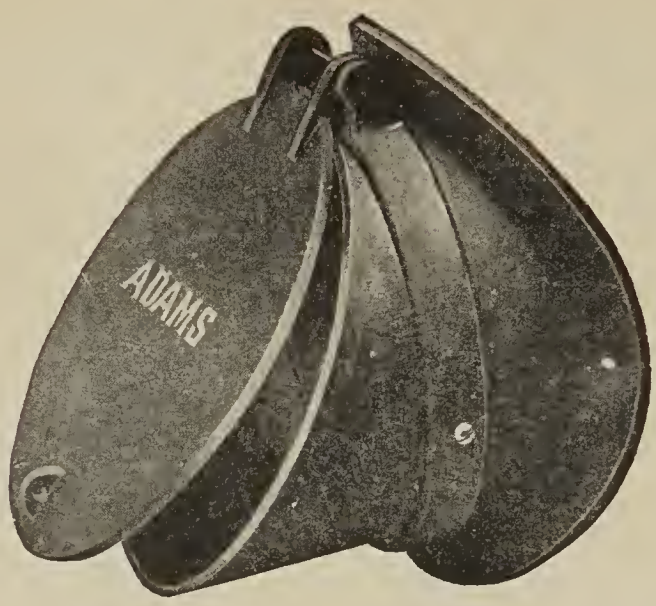
10 lb. Bags.....$ .14 per lb.

Bulk

100 lb. Drums.....$ .13 per lb.
50 lb. Drums.....$ .14 per lb.

Barrels, Half Barrels and Drums

The most practical adhesive for applying asbestos paper and cloth coverings to hot air furnaces and pipes, hot water boilers, steam plants, etc. Quickly made ready for use right on the job, in any quantity or consistency, by simply stirring the power into cold (or warm) water. Makes a strong, white, smooth paste. One pound of the powder makes a gallon or more of paste when mixed. Economical, convenient, sanitary. Put up in a variety of bulk containers and convenient small cloth bags to meet all trade requirements. Used everywhere by Heating Contractors, Plumbers, Sheet Metal Workers, etc.



Adams No. 1 Furnace Check Damper

Adams Check Damper can be set in any position on pipe.

List Prices

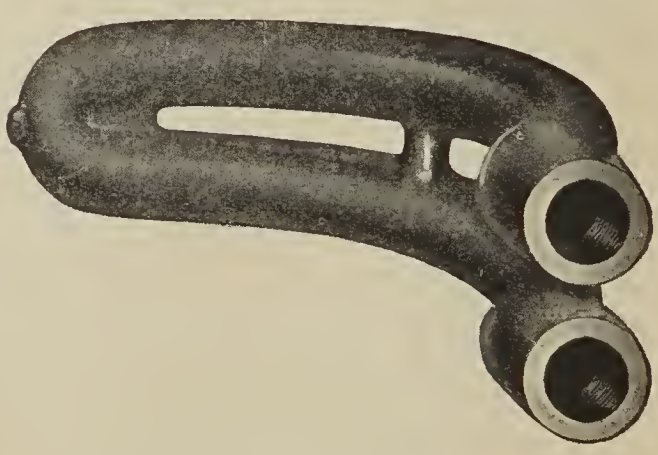
	6″	7″	8″	9″	10″	12″
Check and Collar complete	$1.30	$1.60	$2.00	$2.25	$2.50	$3.25
End Check only	.90	1.20	1.60	1.85	2.10	2.60
Collar only	.40	.50	.50	.65	.80	1.00

Adams No. 2 Furnace Check Damper

Size Pipes	6″ and 7″	8″ and 9″	10″ and 12″
List Prices	$1.00	$1.00	$1.00

Pattern No. 1040 Adams Domestic Water Heater

Will fit International Furnaces and Heaters. Also other makes of Furnaces. Easily placed in Furnace.



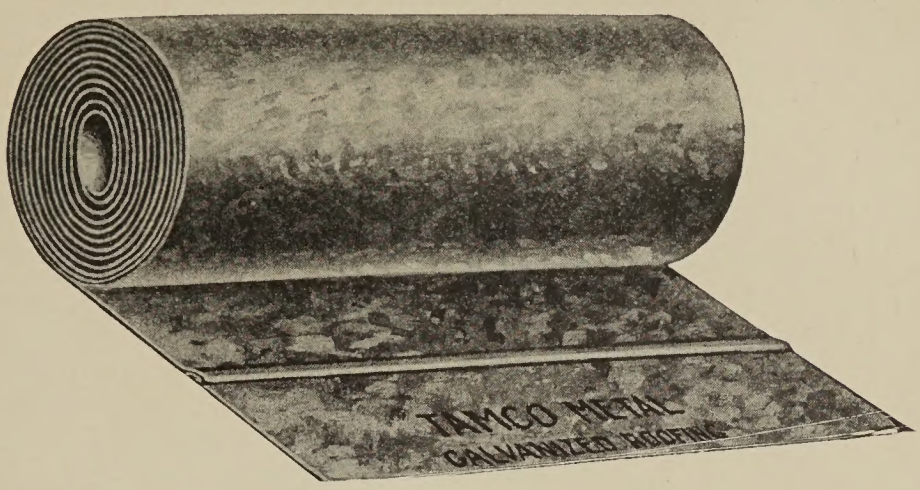
No. 1250 Excelsior Water Coil

Will fit any Furnace—Right or Left Side. Length—16″. Height—4½″. Center to Center of Tap Holes—2½″. Holes tapped—1″. One-quarter Curve.

Weight—Approximately 18½ lbs.

Sheet Metal Products

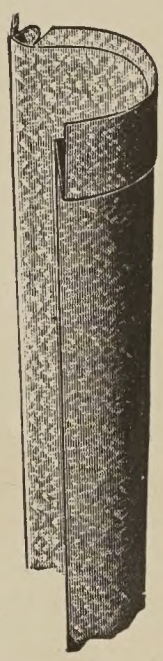
Everything for the Tin Shop

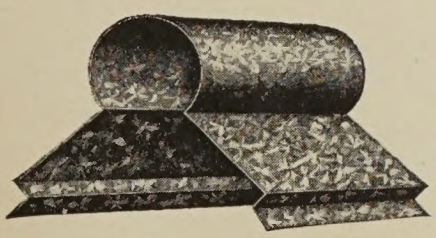


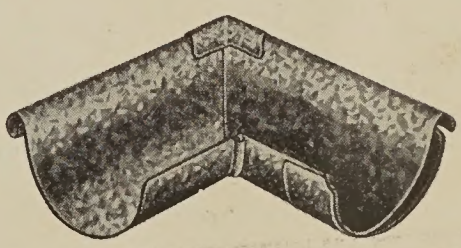
We are manufacturers of a complete line of Sheet Metal formed products as well as jobbers of many items used in the sheet metal shop.

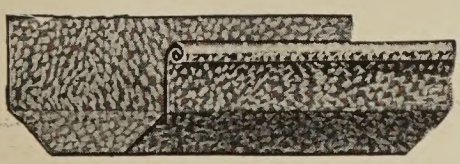
Metal Ceilings
Cornices
Skylights
Furnace Registers
Furnace Fittings and Supplies
Metal Tile
Tanks
Garages
Asphalt Roofings
O. G. and Ornamental Roof Gutter
Eaves Trough
Conductor Pipe and Elbows
Eaves Trough Hangers
Double Seam Mitres, Ends and Outlets
Copper Sheets and Products
Nickel Zinc and Common Zinc
Solder
Metal Lath and Corner Bead

General Catalogue showing complete line will be sent upon request.









INDEX

FURNACE REGISTERS AND FACES

	Page
Floor Registers	5–6
Floor Registers (List Prices)	11–15
Steel Faces	7–8
Steel Faces (List Prices)	8–15
Dimensions of Leading Sizes Floor Registers	9–10
Base Board Registers	16–21
Convex Sidewall Registers	22–25
Ceiling Ventilators	26
Wire Screens	27
Wood Cold Air Faces	28

STANDARD CODE

Regulating the Installation of Warm Air Faces 29–33

SINGLE PIPE AND FITTINGS

Wall Pipe	34
Angles and Ells for Wall Pipes	34
Tees and Elbows	35
Stack-Heads for Wall Pipe	36
Boots for Wall Pipe	37–38
Floor Boxes for Wall Pipe	39
Heads for Base Board Registers	41

FITTINGS FOR BASE BOARD REGISTERS

Stack-Heads—Single Wall	40–41
Boots—Single Wall	42
Angles—Single Wall	42
Stack-Heads—Double Wall	50–51
Boots—Double Wall	52
Angles—Double Wall	52

DOUBLE WALL PIPE AND FITTINGS

Pipe	43
Angles and Elbows	44
Tees	45
Reversible Elbows	46
Boots	47
Side Wall Stack-Heads	48
Floor Boxes	49
Heads for Base Board Reg.	51

ILLUSTRATIONS AND LIST PRICES

Double Wall Stacks	53–66
Single Wall Stacks	53–66
Round Pipe and Fittings	76
Data of Practical Value to Furnace Men	77
List of Tiffin Products	4-83

ROUND PIPE AND FITTINGS

Pipe—Tin	67
Pipe—Galvanized	68
Tees—Galvanized	68
Elbows—Galvanized	69
Elbows and Angles—Tin	70
Casing Collars	71
Draw Bands	71
Cold Air Connections and Boots	72–73
Rectangular Elbows and Pipes	72
Cold Air Heads	73
Casing Bonnets	75

SINGLE FLOOR REGISTER BOXES

Single Floor Register Boxes 74

FURNACE ACCESSORIES

Cast Iron Dampers	78
Hot Air Dampers	78
Damper Clips and Tail Pieces	78
Sheet Metal Screw	79
Hardened Masonry Nails	79
Damper Quadrants	79
Damper Bearings	79
Punches	79
Asbestos Corr. Paper	80
Plain Asbestos Paper	80
Furnace Cement	81
Furnace Chain	81
Flour Paste	81
Check Dampers	82
Water Heater	82
Water Coil	82

Printed in U. S. A
by The Gray Printing
Fostoria Ohio